

AMERICAN BEE JOURNAL

Vol. LXXV—No. 10

Hamilton, Illinois, October, 1935

Monthly, \$1.00 a Year



Detroit: Harbor and skyline. Plenty to look for here.

On to Detroit!

OCTOBER 7, 8, 9 and 10 will mark the first international beekeeper's convention at Hotel Statler, Detroit, Michigan, when the Canadian beekeepers and American beekeepers will enjoy one of the finest programs that has been prepared for the industry in a long time. American Honey Institute, American Honey Producers' League and the Michigan Beekeepers' Association will have their usual annual meetings in addition. The Michigan Beekeepers' Association is host on this occasion.

The convention will be held in the main banquet room of the Hotel Statler at Detroit. There will also be the Second National Honey Cookery Contest and honey and beekeeping exhibits. Apiary inspectors of America will also hold their meeting at this time. We give here the program just received from Mr. Kelty, president of the American Honey Institute.

PROGRAM

International Beekeepers' Meetings
American Honey Institute
American Honey Producers' League
and
Michigan Beekeepers' Association
(Hosts)

October 7, 8, 9, 10, 1935

OCTOBER, 1935

Ball Room Floor
Hotel Statler, Detroit

Convention—Main Banquet Room
Exhibits—Small Banquet Room
Ladies Headquarters—Ivory Room
League Committees—Parlor A
Institute Committees—Parlor B
Apiary Inspectors of America and
Special Committees—Parlor C

Monday October 7, 1935

9:00 a. m.—Registration.
10:00 a. m.—Opening of Convention,
Harold A. Albaugh, president
Michigan Beekeepers' Association,
presiding.
—Invocation.
—Welcome to Michigan.
—Address, J. W. Newton, president
American Honey Producers'
League.
—Address, R. H. Kelty, president
American Honey Institute.
—Announcements.
—Business Meeting of American
Honey Producers' League.
—Secretary's Report, Dr. V. G.
Milum, Champaign, Illinois.
—Report of Standing Committees.
—Appointment of Convention
Committees.

1:30 p. m.—“Not a Beekeeper, Yet a
Honey Producer,” Ira Bartlett,
East Jordan, Michigan.

—“Producing and Shipping a Sixty
Ton Crop to a Central Ex-
tracting Plant,” Morley Pettit,
Georgetown, Ontario.

—“The Production of Queen
Bees,” H. C. Short, Fitzpatrick,
Alabama.

—“Progress in Production Meth-
ods,” M. J. Deyell, A. I. Root
Co., Medina, Ohio.

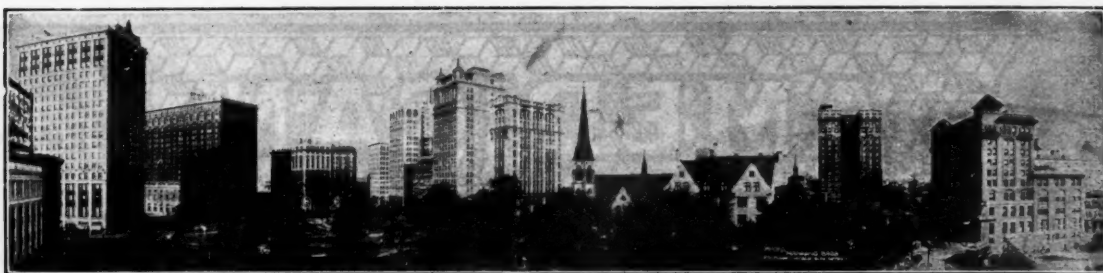
—“The Lesser Wax Moth,” Dr. V.
G. Milum, University of Illi-
nois, Champaign, Illinois.

—“Notes on Weather Influence on
Nectar Secretion,” Kenneth
Hawkins, G. B. Lewis Co.,
Watertown, Wisconsin.

—“Busy Bees Bring Bending
Branches,” H. D. Hootman,
Extension Horticulturist, M.
S. C., East Lansing, Michigan.

8:00 p. m. — “Beekeeping Atmos-
phere,” Frank C. Pellett, Nat-
uralist, Author, Associate
Editor, American Bee Journal,
Hamilton, Illinois.

—“Reminiscences,” Ernest R.
Root, Author, Editor, Presi-
dent The A. I. Root Co., Me-
dina, Ohio.



Grand Circus Park, Detroit.

Tuesday, October 8, 1935
Institute Day

9:00 a. m.—Announcements.

—Greetings, Miss Mary I. Barber, Director, Home Economics Dept., W. K. Kellogg Co., Battle Creek, Michigan.

—Remarks, Miss Edna V. Smith, State Leader of Home Economics Extension, M. S. C., East Lansing, Michigan.

—"The Home Makers' Use of Honey," Miss Roberta Hershey, Nutrition Specialist, M. S. C., East Lansing, Michigan.

—"A Traveling Kitchen Uses Honey," Miss Marion Sawyer, Detroit Free Press, Home Economics Dept.

—"The Development of the Honey Center Golf Ball," E. Leroy Pelletier, Adv. Mgr., L. A. Young Golf Co., Detroit, Mich.

—"Honey in Fermented Beverages," Dr. F. W. Fabian, M. S. C., East Lansing, Michigan.

—Questions and Discussion.

1:45 p. m.—Announcements.

—"Uses for Honey in the Dairy Industry," Prof. P. S. Lucas, M. S. C., East Lansing, Mich.

—"Acid Base Balance of the Mineral Constituents of Honey," Dr. R. E. Lothrop, Bureau of Chemistry, Washington, D. C.

—"Honey in Schools," Miss Grace P. McAdam, Supervisor of Home Economics, Detroit Public Schools.

—"American Honey Institute's 'Home Work'," Miss Mercedes Cranston, Ass't. Sec'y., American Honey Institute, Madison, Wisconsin.

—"Honey Jelly Research," Mr. Rhoades, Products Dept., Cal. Fruit Growers' Exc., Chicago, Illinois.

—"Some Interesting Uses of Beeswax," R. A. Grout, Dadant & Sons, Hamilton, Illinois.

—"Developing American Honey Institute's Publicity Program," Mrs. Malitta Fisher Jensen, Secretary, Madison, Wisconsin.

6:45 p. m.—Annual Banquet.

Wednesday, October 9, 1935

9:00 a. m.—Final Business Meeting of American Honey Producers' League.

—Reports of Convention Committees.



Hotel Statler, International meeting headquarters.

—Election of Officers.

—General Business.

—"Honey Market News Service," Harold J. Clay, Bur. of Ag. Econ., Washington, D. C.

—"Educational Aids to Honey Production," Prof. F. B. Paddock, Extension Apiarist, Ames, Ia.

—"Discussion of the Work of the Bee Culture Laboratory," James I. Hambleton, Senior Apiculturist, Washington, D. C.

—"Beekeeping Trends in Canada," C. B. Gooderham, Dominion Apiarist, Ottawa, Canada.

—"Michigan's Beekeeper Registration Law," D. P. Barrett, Chief Apiary Insp., Dept. of Ag., Lansing, Michigan.

—(Subject to be announced) Prof. H. F. Wilson, Univ. of Wisconsin, Madison, Wisconsin.

1:45 p. m.—Announcements.

—(Subject to be announced) Dr. E. J. Dyce, O. A. C., Guelph, Ontario.

—"Problems of Shipping Bees by Express," W. E. Harrell, Hayneville, Alabama.

—"The Express Company's Service," J. H. Butler, Public Relations Dept., Railway Express Agency, New York City.

—(Subject to be announced) G. H. Cale, Dadant & Sons, Hamilton, Illinois.

—(Subject to be announced) F. W. Muth, Cincinnati, Ohio.

—(Subject to be announced) Chas. Reese, State Apiarist, Dept. of Ag., Columbus, Ohio.

—(Subject to be announced) Dr. M. C. Tanquary, Apiculturist, Univ. of Minn., St. Paul, Minn.

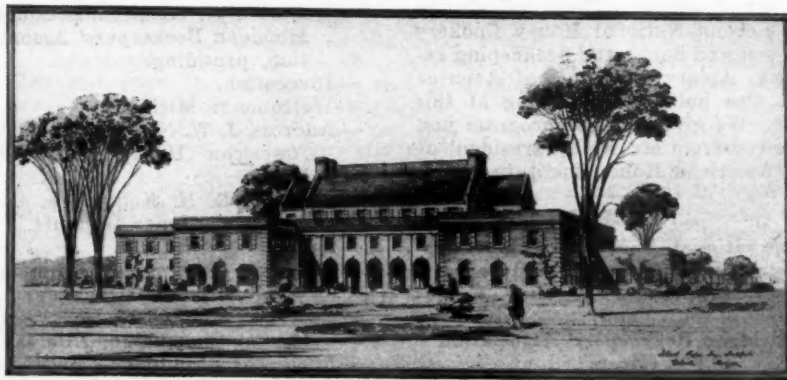
—"Problems Involved in Large Scale Honey Marketing," W. F. Straub, Pres., W. F. Straub & Co., Chicago, Illinois.

Thursday, October 10, 1935

9:00 a. m.—Tour through Henry Ford's Plants, River Rouge, Michigan.

1:30 p. m.—Visit to Greenfield Village, Dearborn, Michigan.

Special trips will be arranged for those who wish to visit apiaries of the surrounding district.



Dearborn Inn.



Air view Belle Isle. Considered one of the most beautiful parks in the world.

Detroit, the convention city, has sent us these pictures through the courtesy of their Chamber of Commerce. The visit to the Ford plant on River Rouge will be a high spot in the Thursday program, and there is the afternoon visit to Greenfield Village, and special trips to surrounding apiaries.

So lay aside your cares and worries. Come to Detroit. Let's show American Honey Institute that we're

behind them. Let's make it entirely worthwhile for the Michigan Association who sponsors this gathering. And let us show the beekeepers of Canada, who will come down to meet with us, that we're seriously interested in our industry.

Remember the dates, October 7th to 10th, Hotel Statler, Detroit, Michigan.

On to Detroit!

Why I Do NOT Pack My Bees for Winter

By Clyde Wilde,
Illinois.

IN reading the Journal I always look for the locality in which the writer lives before I begin because what might apply with him might not apply with me.

So I will begin by saying that I am in northern Illinois, about one hundred miles northwest of Chicago, where I operate about two hundred fifty colonies. Twice in my memory we have had readings of -30° F, but -15° F. is about the average lowest winter temperature.

Until I had about fifty colonies I always packed my bees, usually with good success. However, the incident which had the greatest influence in changing my management happened a couple of years ago. I was examining a neglected apiary of eight colonies of black bees which were very strong for that time of the year. One particularly attracted my attention. It was in a two-story ten-frame Lang-

stroth hive and sat on a two-inch bottom board with the front and back end wide open, allowing the wind a clean sweep.

In addition, the top body had been accidentally tipped forward about two inches. The bees had succeeded in half filling this space with propolis.

The windbreak consisted of dead weeds and a dilapidated building some distance to the north. On the west (the direction of the prevailing winds) the windbreak was one three-strand barbed wire fence backed by a perfectly open field.

In spite of these handicaps, at a date fully two weeks before the honeyflow, this colony had the bottom body full of brood and also brood in the top body. It was boiling over with bees as docile as a pack of half starved leopards in a sheep fold and it had queen cells in the larval stage.

On another occasion I was called

to get a swarm in May, long before I heard of bees swarming anywhere else. I found one of the largest swarms I had ever seen which had issued from a single-story unpacked eight-frame hive.

In talking with Tom Kline, a neighboring beekeeper, he related an experience he had observed where a bee tree had been cut in the spring before the honeyflow. The bees during the flow had built their combs in the open air and survived the winter in that condition.

The first two colonies mentioned were in the hands of careless beekeepers who, by not supering their bees, had unwittingly provided them with the proper requisites for winter, namely a good cluster of bees provided by the young queen after swarming and plenty of honey for brood rearing; a compact well provisioned brood nest for winter.

Experiments in Wyoming prove that in cold weather bees consume no more honey but they contract into a smaller cluster to conserve heat. This causes the bees to contract away from the honey even though it be above the cluster. So, the colony in one story with honey well down in the center combs has an advantage over the two-story colony with the bees clustered in the lower body and the honey in the upper one.

To illustrate—Last fall due to extreme drought there was scarcely a drop of nectar brought in except a little from asters which came after the bees had stopped brood rearing. Consequently some of the clusters were small. On February 2nd I examined a number of colonies, several of which had clusters no larger than a good sized grapefruit. They had apparently wintered perfectly as they were quiet with practically no dead bees. They withstood six below zero and the lowest temperature of -13° F. with a high wind. They were not packed but were heavily fed with syrup in the fall and their feed was abundant and well down on the combs.

Give me a reasonably sized cluster, preferably of Caucasian bees, in a single-hive body well provisioned with stores (syrup if winter flights cannot be depended on), a good windbreak, and I will back them to go through any winter unpacked. I have never lost a single-story colony of Caucasian bees.

Honey Used By Sanatorium

Dr. Howard L. Hull, Superintendent, Oakhurst Sanatorium, Elma, Washington, has provided that honey be on the dining tables at all times. After trying honey in the diet of several patients, Dr. Hull became convinced of its worth and his institution uses more than a thousand pounds a year.

J. H. Sturdevant,
Nebraska.



Bees and Red Clover

Red Clover was once an important farm crop in the Midwest. During recent years the acreage has gradually declined until it is no longer found in many neighborhoods. The Extension Service of Iowa State College of Agriculture is making a study of the relation of the honeybee to the red clover under average farm conditions. It appears that the presence of a sufficient number of bees to insure pollination of the blossoms is an important element and that the decline of beekeeping may have a close relation to the reduction in acreage of red clover.

Professor Paddock, State Apiarist, contends that any system of permanent agriculture must be built around legumes and is of the opinion that in some sections, beekeeping and the growing of red clover may well come back together. While the bees seldom get much honey from red clover they do visit the flowers freely for pollen and thus assist in the production of the seed crop.

It is commonly reported that in some parts of Russia the Caucasian bees gather honey from red clover. Perhaps this strain of bees might be better for the red clover neighborhoods here.

Science Asks Questions

Much progress has recently been made in the study of soils and their relation to plants. Only a few years ago it was assumed that nitrogen, potash and phosphorus were the only important elements to be considered in any soil problem. Lately it has been learned that such things as copper, magnesium, zinc, iron and others are essential to certain plant requirements. The presence or absence of minute quantities of these minerals may make for prosperity or adversity for the farmer. Now we want to know what effect they may have on the flow of nectar on which the beekeeper depends. Certain it is that there is much variation in yields of honey from different soils and we want to know more about the reasons.

Disease Resistance

The June issue of the Journal of Economic Entomology contains an interesting and timely article on "Resistance of Honeybees to American Foulbrood." R. G. Richmond, apiary inspector of Colorado, is the author. The article in question describes in detail an experiment by the author to determine the relative ability of different strains of bees to combat foulbrood.

Richmond throws some light on a subject which is just now very much under discussion. It is interesting to note that the colonies which failed to contract the disease are the one which cut the innoculating pieces of comb down to the midrib. In other words the ones which were good housekeepers.

There has been much speculation as to whether disease resistance in bees is a physiological immunity or whether it is the ability to do a good job of removing diseased material from the hive. From Richmond's work one is led to believe that it is good housekeeping which frees the bees from the disorder.

Too many cases similar to the one reported by Richmond have come to public attention to leave any question as to the resistance of certain colonies to American foulbrood. It remains, however, to establish a strain of bees by breeding which can be depended upon to overcome disease.

Those who have read the article, "Foulbrood and Heredity" by C. R. Walker, in the September issue of

this magazine will realize that this problem offers serious difficulties. Too often it happens that a colony which has remained relatively free from disease, soon dies out when the old queen is superseded and a young one takes her place at the head of the colony.

Cooperation

Mankind is very slow to develop a cooperative society where all may profit from the combined efforts. While we readily recognize the fact that many of the things of greatest value to us would be impossible to secure by individuals working alone, we still fail to find ways and means of a fair distribution of the fruits of our common labor.

The beekeeper has constantly before him a fine example of the possibility of cooperative effort, in the work of the hive. An individual honeybee would be helpless to survive by itself. Such cooperation has been developed among the bees as to provide security for the colony as a whole. Thousands of worker bees clustering together build a honeycomb which is a marvel of strength and utility. It provides a place in which to store the winter food supply as well as to rear the young brood from which the oncoming generation must be recruited. All working in harmony are able to lay up a store of food which is ample for long periods of dearth; are able by combined attack to drive away enemies and protect their store against marauders and by joint effort to generate sufficient heat to survive the cold of winter.

Nowhere else do we find such perfect division of labor as we find in the hive nor such equal division of the fruit of the toil of the workers. Every individual bee apparently contributes freely to the common store and each in turn supplies any personal need which may arise from this reserve. Each profits personally from the ability to join forces with others. Individual bees have greater security, more abundant food supplies in time of scarcity and a longer span of life than would be possible by working alone.

Men have a long way to go before they are able to work together in similar manner to a common end. Personal selfishness which causes the individual to take all he can and give as little as possible in return delays unduly the possible benefits to human society of common effort.

Lespedeza

Beekeepers will watch with a great deal of interest the spread of lespedeza on American farms. The beekeeping industry very largely depends upon the legumes which are grown in the farm rotation and the popularity of a special plant may largely determine the prosperity of the honey producer in any area.

Beekeepers were largely responsible for the spread of alsike clover in the early years and later served in a similar manner the introduction of sweet clover. Both proved highly popular as farm crops and the beekeepers reaped abundant harvests of honey as a reward for their activity.

With the general introduction of lespedeza we may find a crop which will prove equally valuable to the farmer without offering so much to his beekeeping neighbor. We have tried for years to ascertain the value of lespedeza to the bees and thus far have been able to find only a few scattering reports which indicate that it is anywhere of much value as a source of honey. Our personal trials have all resulted in negative results—the bees have paid

no attention to the lespedeza and indications are that none of the varieties so far under test in America are likely to help the honey producer to any important extent.

Those interested in lespedeza will be interested in a new bulletin, "Lespedeza in Illinois" by J. J. Pieper, O. H. Sears and F. C. Bauer, issued by the University of Illinois. In it are described five distinct commercial varieties now under test with their history and place in agriculture. Lespedeza is especially valuable on soils which are too poor to grow the clovers successfully and may prove to be of great importance to American agriculture.

Printers' Errors

In view of the number of words which appear in a single issue of any publication it is not surprising that errors often occur. However, the slips which get into the pages are often the source of considerable embarrassment to the editor. While not important, such an error in our September number greatly changed the meaning of our editorial on the bee disease experiment. As written it read, "If there is such a thing as **resistance** to American foulbrood we hope to find it." When the printed page appeared we were made to say, "If there is such a thing as American foulbrood we hope to find it."

It is probable that most readers are able to determine what was intended in case of most typographical errors but the occurrence of such mistakes in spite of the most careful effort often makes the editor appear in a ridiculous light.

Roadside Selling

In traveling about one is impressed by the difference in appearance of roadside stands. Those which are well kept and offer a good product appear to do a good business while others have little evidence of prosperity. In this connection some interesting observations have recently been made at Cornell University, as follows:

"A quality product must be offered in a clean and attractive display; the stand must be well located with ample provision for easy parking and when the stand is open at night good lighting must be provided."

Honey is among the products best suited to selling at a roadside market but no product demands more care in handling. If the customer finds his package to be dirty or there be evidence of dirt in the honey, he is not likely to return for another supply.

The Minor Sources of Nectar

In a poor season the value of the minor sources of nectar is brought forcibly to the beekeeper's attention. At the same time he sees clearly how hopelessly inadequate they are.

Owing to last year's drought there was neither white clover nor sweet clover in the vicinity of our experimental apiary, and the bees there were entirely dependent upon the minor sources of nectar. Several times during the season there were short flows, but none of them lasted long enough to enable the bees to fill their hives or to store any surplus. Every possible source of nectar was eagerly visited. Catnip, hollyhock, cup plant and a hundred others were covered with bees. The honey thus secured kept the bees occupied and provided stores for brood rearing. The bees were able to live and but little robbing occurred, but there was no surplus honey for the beekeeper.

A little investigation shows very clearly that the minor sources are of great importance even in a good season. They largely determine the condition of the colony at the time when the main honeyflow occurs. If there are plenty of minor sources to maintain activity in advance of the flow, the beekeeper is likely to harvest a crop much larger than the crop he will harvest if minor sources are lacking.

A good location includes a wide variety of the less important plants along with a large acreage of some dependable producer of surplus.

Financing the Honey Institute

The shortage of funds which for a time seriously handicapped the American Honey Institute again brings forward the problem of providing a steady and assured income for the organization. It would seem that the original plan of contributing a dollar for each ton of honey produced is a very fair one; and, if it were generally accepted by the beekeepers, it would provide ample funds.

The plan of support adopted for the Apple Institute provides a flat membership fee of \$3 a year for growers marketing less than three thousand bushels a year. Others are urged to pay one tenth of a cent a bushel.

The important thing is to secure consistent support. But little can be accomplished as long as income is uncertain. Publicity campaigns, to be effective in influencing the food habits of the public, must be carried on over long periods of time until the use of the product becomes fixed in the household routine. The expenditure of a very large sum in one grand plunge would give but little return if it were not followed by intelligent planning.

The Institute does not require a large budget, but it should be provided with a definite sum which can be depended upon month after month and year after year. If beekeepers will adopt the dollar a ton schedule and send in the check at a specified time each year, there will be no difficulty in keeping up the work so well started. Organizations that depend upon spasmodic contributions are never prosperous for long. The success of the Institute is vital to the success of the individual beekeeper and its support should be considered as a fixed charge along with taxes and insurance.

Members of the finance committee, who give their services without pay, become weary of having to make the constant plea for support with so little evidence of appreciation.

Watch the Stores

With the coming of September the beekeeper begins preparations for another season. In many localities the honeyflows have been light and there will be many colonies which will have failed to provide sufficient stores for winter. The earlier this shortage is made up, the more easily it can be done, and the better it will be for the bees.

Every year large numbers of colonies are lost through failure to provide enough food to carry them through the winter months. The inexperienced beekeeper is the one most likely to fall into error in this way. It is for him that this warning is meant.

At one time it was recommended that every colony have from twenty to twenty-five pounds of honey for winter. Now it is generally thought that not less than forty or fifty pounds should be in the hives at the close of the season. It is better to have plenty of honey to carry the bees through the period of early spring brood rearing than to take a chance on having to feed again at that time. It is better to have more than will be needed than to allow the bees to feel that supplies are limited. If stores are short in spring, brood rearing is likely to be curtailed just when it is most important that it be active.

Immunity to Stings

It is commonly known that beekeepers who are frequently exposed to bee stings usually develop a considerable degree of immunity to the effect of the poison thus absorbed. An interesting question arises as to whether this immunity is permanent or whether it is soon lost to one who no longer continues to get an occasional sting.

The writer of this has spent several years in office work and has been long away from the apiary until recently. He expected to suffer the old time pain and swelling which accompanied his first contact with beekeeping. Such was not the case, however. The first day's work in the bee yard brought a dozen or more stings but they resulted in nothing worse than a slight itching. Apparently immunity lasts.

Progeny Testing for Improved Bees

By Robert M. Mead,
Vermont.

THE more fanatical sponsors of scientific breeding will tell you that anything can be accomplished by scientific selection and proper mating. News items have appeared from time to time telling of a future race of perfect humans, generated by forgetting love and other human traits and propagating only by the most scientific selection. Interesting forecast of the future perhaps, and as far as most of us are concerned pure rot. The same analysis will apply to the scientific breeding of any animal, plant or living object. The method has great possibilities but in order to make the most of these we must understand the limitations from the start.

These limitations are imposed by lack of knowledge and by the facts of results already obtained. Knowledge of this matter has advanced by leaps and bounds in the past two decades, yet the results to date show that we are still in the dark ages; that in scientific breeding we have merely scratched the surface enough to show our ignorance. Beekeepers have bewailed the fact from time to time that other lines of husbandry, such as the pedigree breeding of poultry and cows, have made great advances while improvement of bees has stood still. Yet the fact remains that in either line advancement reaches a certain point and then remains stationary or almost so; and that any intelligent progressive queen breeder probably could catch up with any results yet obtained by a few years' work.

We advance by trial and error, by unlearning many things that we have thought to grasp as gospel truth. In the beginning there was the matter of purebreds. And for years we dwelt secure in the false knowledge that if anything was purebred, then it must necessarily be better than mixed breeds or scrubs. But after a while the light trickled through and we found to our dismay that a purebred cow of any breed could be just as much a scrub as the veriest scrub; and that a hen of the most regal bloodlines might not be worth her corn; and that a purebred bee was not necessarily a superior bee to one that might have a dozen races in her ancestry.

We then advanced a step by deciding that we should breed only from the very best of our purebreds. You know the old saying, like breeds like; but it is only a half truth after all because in time we found that even

after years of breeding from our very best cows and our very best hens we still had specimens that were not worth their keep. And moreover the higher we went in milk production and in egg production the easier it proved to slide back to normal and to below normal. Ancient ancestry apparently plays a part as well as immediate ancestry.

And in time we came to the present which is a time of progeny testing, of breeding by families dominant in the traits we desire to propagate; and we found that even then we have advanced only a step, that our growing knowledge served only to emphasize our still colossal ignorance.

In beekeeping there were obstacles, apparently unsurmountable at the time, which complicated any attempt at scientific breeding. In the first place the virgin demanded that her wedding and honeymoon, or whatever it is to a bee, take place in the air. And her mate might be any of a thousand drones in the air at the time, or even one from a nearby bee tree or from a neighbor's hive if those hives were nearby. So it is a safe guess to hazard that the family tree of any hive or strain of bees would be an amazing thing.

Artificial mating was the dream of early breeders, everything plausible and fantastic being tried. In the present we come down to a hand method which is at least partly successful in hands of experts but certainly not in wide use nor likely to become widely used among hundreds of queen breeders because of the time and technical skill required. Also a new point becomes involved; with it possible to select the individual drone what drone shall be selected? Just the one from the best swarm? That is a start but in other lines it has been clearly shown that it is never enough. And shall we breed from the best queen? Yes but what is the best one? Consider that in other lines for instance it is not perhaps the 300 egg hen that is most valuable to the poultryman but the hen that produced her; that it is not the world champion cow that is most valuable as a breeder but her mother; that almost never does the top bird or animal produce offspring as good as herself because her energy has gone into production of eggs or milk. And that perhaps your best queen, from the standpoint of her own hive's production, is not your best breeder because her energy has been used up

in building up her own outstanding swarm.

Let us consider what has been done already in bee breeding and what the possibilities of future work are.

In the first place any intelligent beekeeper recognizes that it is difficult to apply any rigid rule for measuring the worth of a strain of bees. The vast number of factors involved complicate the situation. If we are to judge on production alone then all the bees in the sweet clover belt would be superior to the bees in the East but that is obviously untrue. If we are to judge a strain on their ability to refrain from swarming then they may make a brave showing in one locality and swarm furiously where the honeyflows occur in a different manner. The same goes for gentleness and hardness. The ideal manner would be to assemble records on a breed or a strain from all states in the union and rate them on their average. Unfortunately I know of no attempt to assemble any such information. Italian bees are universally kept and are considered the most popular, the best all around honeybee for the United States. But if some other race had been brought in at the same time, pushed at the same pace by breeders and supply houses, would not they hold the same place that Italians do today? It is at least an interesting question.

With the cleaning up of bee trees, the establishment of large apiaries and the isolation of queen rearing yards if necessary it has been fairly easy to breed any race of bees "purebred" and to establish certain strains having characteristics setting them apart from other strains of the same race. We have Italian bees in all colors from the very golden to the very dark leather colored. And of course the other races in their purebred form. Certain breeders have produced strains that were either very gentle, very productive or nonswarming and a few strains combine all these qualities to a certain extent.

Yet I would like to know if a superior race of bees has been bred. Who knows? If a yard of bees in 1850 could have been hived in modern hives, given the best of modern management and had unlimited sweet clover for pasturage would they have gathered as much honey as a yard under the same circumstances today? Has our gain been in equipment, management and pasturage; or in superior bees? Are the Italian bees

of today better than those that were originally imported?

I would like to mention also in this article the tendency of Nature to do her own selective breeding; and that such work is not always along the lines considered best by man. Take any color of Italian bees and let Nature have her way with them for a number of years and in the northern states at least you will have a very leather colored or black bee. A bee that knows what end his stinger is on, one that fills the brood nest well with honey as summer wanes. A bee in short that considers survival above all other things. Nature's program usually provides for survival of a race. Man's for survival plus a surplus for his own use.

Supposing that we desire to produce a superior strain of bees let us determine first the things that we must work for; in other words the characteristics we must fix to have really superior bees. We will consider that all races of bees are about equal in basic worth so we need not consider any special race of bees, that choice being left to the preference of the individual breeder. First and foremost in everyone's mind will be the factor of production. If we could disregard everything else and just breed for production our problems would be relatively simple—that is, we would have only that one factor to consider in selection and breeding.

Yet with honeybees as with cows or poultry to breed for one point only to the exclusion of all others is to come ultimately to disaster in one form or another. If we breed our bees for production only they might easily be so cross that no one would care to handle them, so that really they would be of little practical value. So we must add a second factor, gentleness. We do not need to go to the extreme with this but they should be bees that could be worked at good speed with ordinary equipment, usually veil and smoker. Keep in mind, in breeding up anything, bees, poultry or animals, that as a general thing one must consider the practical values. Values that point towards profit rather than towards fad or useless beauty.

There are two other factors that almost anyone would desire in a strain of bees. They should be prolific without an undue tendency to swarm; and they should be hardy. Under hardy will come a number of subdivisions such as **resistance to disease**, ability to carry on in rough weather, vigor to live in harsh country, etc. As a measure of hardiness I would consider bees that would winter ninety per cent in the northern states year in and year out as all right. This of course with proper stores and some protection.

A fifth factor would of course be the item of breeding a strain uniform

in color. To do this too obviously, such as having bees yellow to just a certain ring, is probably impractical but it will be necessary for their commercial success to have them fairly uniform. A solid colored race, such as Carniolans, would have the advantage here as generally speaking it is much easier to breed any plant, bird or animal that is one color than when two or more colors are involved, and especially if those colors must occur in some standard pattern.

To sum up what we want, our perfect strain of bees will have the following characteristics; first, highly productive as expressed in honey gathering ability; second, gentle; third, prolific but nonswarming; fourth, hardy; fifth, uniform in appearance. There are other things that might be mentioned but those five factors are enough to tackle for a beginning and certainly no beekeeper would kick if he could obtain stock having all those qualities to a high degree. Such strains do exist to a certain extent now but they should be improved. We may be pleased with what we have but we should never become so self-satisfied that we give up trying to make further improvement. Progress made what we call civilization. When progress stops man's work in the world is done and we go backwards into the oblivion we came out of. This applies to bees just as much as to medicine, machinery or social evolution.

The very apparent difficulties of carrying out a breeding program with bees, considering their method of mating and the expense of artificial mating, has prevented many breeders from making much attempt at improvement. In fact scientific bee breeding has often been mentioned, both in discussions and in literature as just hopeless. Yet I believe that progress of a sort can be made by any progressive and alert queen breeder without getting into too complex or expensive a program. **The program I would submit for your consideration is one of progeny testing.** I wouldn't be surprised if some of our best queen breeders had been doing this for years and keeping rather quiet about it.

Control of the drones has always been the unsurmountable problem. All right, we will ignore them. That settles the drone question except that one must be sure that only drones from his own stock can mate with his queens. That means no wild swarms near your queen mating yard and no other hived bees within a number of miles. We will make our progress solely by selection on the female side. Take a half dozen or so breeding queens, the number is unimportant but there should be more than one. Rear from each one of them ten to twenty queens. With these young queens requeen hives in

the home yard or outyard if desirable but the important thing is that you must know just what queen is in each hive as regards her pedigree. We will say for example that we call breeding queen number one, Number One. Her daughters then will be kept track of by marking each hive to which they are introduced with a conspicuous number 1.

Now comes the part where you must use all your knowledge of bees, all your hard heartedness and a lot of the mysterious knack for selection that all good breeders have. It is by the progeny test that we judge each breeder, not by herself, but by the average qualities of her daughters. And they must be good, not just one good and one fair and the next one just getting by, but all highly uniform in the qualities you wish to perpetuate. Having actually located a good breeder by this method you have begun to go places. With two such breeders, outstanding ones remember, on the basis of their daughters' performance, you can requeen all your bees and having done so have stepped up the quality of your stock just that much. Your future work is a continuous one of selecting each time better and better stock by the progeny testing method. I say ignore the drones because there is not much you can do about them anyway; and their quality will improve gradually as the quality of your strain improves.

I do not hold out the above method as perfect or that it will get immediate and startling results. Any queen breeder really interested can improve upon it to suit himself, work out better methods of progeny test, etc. The purpose of this article anyway is to start you thinking, get you off the seat of your pants where you have been as far as bee breeding is concerned for the last fifty years.

I can hear someone ask why breed better bees? The ones we have now produce more honey than we can sell. All right stay stuck in the mud if that is the height of your ambition but remember that some day you may wake up to find that the world has gone places and that you are not even in the parade. Right now only a little over a pound of honey per capita is consumed. We are hammering away on the marketing end and if we succeed even partially, so that five pounds per capita is consumed, where is it coming from? Even with the market as it is wouldn't your profit be greater with better bees? More pounds of honey to the hive, less work to prevent swarming, less worry about wintering. Cost of production per pound down where you could sell honey as a food, instead of a luxury.

All worth working for. Worth taking the disappointments, and the setbacks that come to every breeder. Because it is difficult. It means con-

stant selection, no let up. The farther you advance the more difficult to hold your ground because everything has a tendency to revert to a common low level. But the difficulties should be a challenge, not a stop sign.

I would say a word about crossbreeding. It often appeals to people as a quick way of getting somewhere, and it is, a quick way of getting into a morass of difficulties. Just don't do it. Consider this; that crossbreeding is just as apt to intensify the poor

qualities of each race as it is to intensify the good ones. That after your first cross you have a hodgepodge to work with, your difficulties are multiplied by having all the factors present of an ancestry of both races; and in succeeding generations all sorts of variations in dumbfounding array are bound to pop up. With bees, especially, one has enough to handle to make an improved strain of an existing race. If you don't believe it, try it.



Warehouse and processing plant which U. S. Standlee, of Ontario, California, built with modernization credit funds.

Modernization Credit Plan For Beekeepers

THIS is a story of a California beekeeper who, with the help of the Modernization Credit Plan of the Federal Housing Administration, gave himself a bootstrap lift.

For years U. S. Standlee, of Ontario, producer and shipper of choice California and Utah honey, rented storage space for his crop while he found a market. At three to five cents per case per month, on an average of six hundred cases, the charge ran into money with additional expense in hauling the honey from his extracting plant to the warehouse.

Now Mr. Standlee has a plant of his own—a building thirty-two by seventy feet with loft that is not only large enough for processing and storing his honey, but with additional space to house machinery for the making of cases, frames and other supplies which heretofore had to be purchased.

Eliminating storage rent and hauling expense plus the saving on supplies which are made up in spare time, is more than sufficient to repay the government-insured credit, obtained from his own bank, within the life of the contract, and Mr. Standlee has enough additional plant room to take care of any reasonable ex-

pansion he may make in his business during the next few years.

While Mr. Standlee built his plant under the original provisions of the National Housing Act, recent amendments make it possible for beekeepers whose main business is producing honey, to obtain up to \$50,000 in modernization credit for plant extensions, new equipment or replacements, provided the bank or other financial institution considers him substantial risk and is therefore willing to lend him the amount he needs.

Where bees are only a sideline, modernization credit available for repairs and improvements to the apiary or equipment is limited to \$2,000. Broadly speaking, government-insured funds may be spent to build hives which become a fixed part of the property, repairs to hives or installation of concrete foundations. Extracting machines and other things needed to put honey in condition to be marketed also come under this regulation. Permanent attachment is no longer required for eligible machinery or equipment, but where there is any question, a ruling from the Federal Housing Administration, Washington, D. C., should be requested.

Under express provision of the Na-

tional Housing Act, insured modernization credit cannot be extended after April 1, 1936.

Home and dwelling repairs, improvements and modernization are eligible under Title I of the National Housing Act. In fact, a summary of the modernization loans made to farmers shows work on homes to be more numerous than any other activity in rural circles. Analysis of the repairs on dwellings comprise seven of the ten most popular items for which government-insured funds were advanced, with roofing leading and painting second.

Several million dollars in modernization credit funds and private money were spent by farmers on building improvements during the past year, according to the Federal Housing Administration. Monthly loans have advanced steadily.

Estimates are that, because of crop prospects and good market prices, monthly expenditures for building repairs and replacements will continue to advance until the farm modernization program ends next spring.

Evolution in Beekeeping

By Clarence J. Tontz,
Oklahoma.

I noticed in an article recently that a survey of a certain area showed a slight decrease in the number of beekeepers. To one who did not understand the situation this might seem discouraging. To some it might seem that beekeeping isn't profitable, since the number of beekeepers are dropping off instead of adding on.

I cannot say such a report is discouraging or depressing to me; not that I would be elated because of decrease in sales competition. That is not my object. What little honey is sold from my small apiary is not a drop in the bucket as compared to the amount sold by a single firm in this state. Even if I did conduct a large honey business I can't say I would be much worried by the competition in this state, at least not by good, clean competition. As the situation now stands there are plenty of people in our state who can and will use honey and more honey if properly educated to its many uses. I believe that good, clean business-like competition between honey-selling companies would result in a better business for each. Each force would endeavor to put a neater, better quality of honey before the public, to advertise his product; consequently a high quality of honey would be placed in the limelight.

The decrease of beekeepers with a few exceptions of tough breaks for some able beekeepers who will even-

tually come back, is nature's own way of culling out those who lacked the initiative or ability to make a success of the occupation. One good beekeeper under the same conditions as say half a dozen careless beekeepers will, I venture to say, market just as much honey with only a fraction of the total number of the colonies of the other group. The good beekeeper's distribution of his honey, and his scientific methods of keeping bees are a boon to the beekeeping fraternity.

While the other group of beekeepers may distribute as much honey and advertise elaborately, they may not be hesitant in throwing in some old dark honey with the new, or there may be some in their group who might deem it too much trouble to strain their honey in order to remove the foreign matter that is most likely to get into the honey. This group is advertising honey all right, but in a degrading way.

The would-be beekeepers who have heard somewhere that they could place a swarm of bees in a box or hive and forget them except to add on supers in the spring and remove them in the fall full of honey are beginning to find out that the business isn't as prosperous as it might be.

Time was once when one could keep bees in gums and straw skeps in this country with fair success as compared to other pursuits in those times. In the early days, almost every family kept bees. When the family larder was shy of sweets some member of the family would go out to the gums, select a prosperous looking colony and proceed to rob it. The pegs which were stuck through the walls of the gums were pulled out. The combs which were built on these pegs would come tumbling down to the bottom of the gum. Along with the honey in the comb would be beebread and perhaps a few blotches of brood. Maybe the queen would be killed, maybe she wouldn't; at any rate a great number of the brood and adult bees would be killed or drowned.

But along with progress in civilization more problems are involved; diseases and parasites grow in number, and competition grows keener. Pests and diseases began to attack the colonies. The beekeepers were seriously handicapped in fighting these enemies because of the construction of the hives. There were many people who feared and dreaded the task of taking care of their cross hybrids. But there wasn't much they could do about it then, especially those who lived out in the country. They had very few luxuries and very little money; consequently they could not afford to purchase their honey.

Necessity (that of being able to manipulate the hives in order to fight openly the pests and diseases of bees

and other retarding elements) prompted the leaders of beekeeping to bring forth the removable frame hive, and as time advanced to supply them with foundation, to properly take care of them in the winter.

Conditions began to gradually improve. Factories greatly aided in the movement of specialized labor. More money came into circulation. Gradually fewer and fewer apiaries could be seen along the roads where once almost every yard showed evidence of beekeeping. Many people who had

had bees in their families for many generations gave up their beekeeping task in favor of the more convenient method, that of buying their sweets.

Beekeeping along with other enterprises is becoming more specialized. It has yet a long way to go, but it is falling more and more into the hands of interested and capable beekeepers. I am glad to see it so.

Everybody cannot be a success at everything, neither can everybody be interested in everything; the same applies to beekeeping.



Scholz plan of winter protection.

Wintering Bees

By W. H. Scholz,
Nebraska.

Most beekeepers lose at least one-tenth of their colonies every winter. This is a minimum loss, which is increased to one-half or more in some sections. This decrease is due to carelessness or lack of knowledge.

One reason for loss of colonies in winter is the belief of some beekeepers that some winters bees survive without protection. Although there is nothing on a farm that gives a better return on the investment than bees when properly cared for, most beekeepers neglect them.

The usual causes of winter losses are: (1) Insufficient stores. (2) Excessive heat production. The lack of stores is more certainly due to carelessness on the part of the beekeeper than is the heat production. If a colony is not protected it will have to generate more heat, and by this generation more stores are required than when they are packed or protected.

Excessive heat generation is only found when the temperature of the air surrounding the bees falls to about 50° or lower. Then they form a cluster, and those in the center begin to generate heat by muscular activity, as those on the outside of the cluster insulate themselves by

crowding together. The entire cluster becomes smaller as the outer temperature falls.

If bees are wintered outside in packing cases with abundant stores and good insulation, any heat generated escapes slowly and the temperature within the hive rarely falls below 55° F.

I have winter packed my colonies for eight years and my losses are slight. I lost three out of thirteen colonies two years ago by having too much moisture within my hives, owing to insufficient ventilation; now I ventilate by placing a four-ply burlap sack between the inner and outer cover. This ventilates very successfully and also keeps out any drafts. I string my colonies out in a row of about fifteen and surround them with straw, and each colony has a full depth hive body of stores over the brood chamber. I have never had a colony run out of stores in eight years, and we have had quite hard winters at times. I have found a single packing case to be the best all around winter protection, but owing to the fact that present prices of lumber are too high I have discontinued the use of them.

Shall We Requeen By Time or Performance?

By W. E. Lindsay,
Colorado.

THERE seems to be a tendency in recent years toward frequent requeening; a few beekeepers requeening every year. Seems to me it would take considerable hardihood to pinch a fine top-notch queen just because she was a year old, to follow out a hard and fast rule. Then the trouble and expense of it. A good queen cannot lay herself out in one season's laying. How does it pay? My experience has been that, on the average, a queen is good for three season's good laying. Some queens do me for one year, some for three or four. I have now a 1930 queen in the yard. Her colony is a good average for the yard right now. I clip all queens, and there has never been an unclipped queen in that hive since 1930. I keep a book record of every colony, and know the age within a week of nearly every queen I have. I'll admit that it is uncertain going into winter with very old queens. I would not want to carry my old queen into another winter. Through the years, I have had numbers of queens that layed good in their fifth season. This is not an argument for the keeping of aged queens as a practice but only as experimental. I am a follower of Dr. Miller in that I never kill a queen for age. As long as her brood is solid and regular, she is all right with me. Many times a young queen lays indifferently through her first season, then lays good through her second and third year. Thus, it would not pay to pinch her at the end of the first full season. If she has been fully fertilized, she will be capable of laying just about so many eggs in her active life. So, that if she lays very heavily her first season, she will have a less number to lay in her second and third. Many colonies will not supersede, no matter how much the queen fails, some even to being hopelessly queenless. Then, there are some that will supersede a young queen of one or two years of age, even if the brood looks good. The killing of the queens every year allows less chance to observe the desirable traits of the queens, for instance, longevity. Although other qualities, as honey-gathering, gentleness and good wintering, would be observable in the colony. It is certain that, if we requeen every year, we will have practically no supersedures except from set-backs in the mails, and all queens will have to be bought or reared. Supersedure queens are

cheap and easily got and we also have a good many surplus cells to queen other colonies with. We might suggest that queens to be replaced should be pinched about half a day before the cell is put in, if we use the cell protector, so that they know that they are queenless or they are apt to tear it out of the protector. Otherwise we can put the cells in individual cages, and these in a frame to be hung in some colony among the bees. These must be looked at once or twice a day as they hatch. These newly emerged virgins can be quietly slipped into a colony between the frames without any trouble if they know they are queenless and a honey-flow is on. If we keep in the hive a little brood in all stages, while the virgin is getting ready to mate and lay, the bees will use her better because this is natural and normal. Often it has happened that the brood being all emerged, the combs buzzing dry, the bees exasperated because

she did not lay soon enough, mauled the virgin until her wings were distorted, then she could not fly and mate. Supersedures and cells which I used last year (1934) were well toward fifty per cent of all colonies. A fine way to get cells, the same as supersedure cells, where we use the Langstroth hive, is to put on an excluder between the stories, raise up some of the young brood to the upper story, if there is none up there, which there generally is; put the queen below and they will build cells above the zinc, sometimes lots of them.

Older Bee Men Beware

Deputy inspector Harry Lefler, of Hancock and McDonough Counties, Illinois, sent us a clipping from a Macomb paper reporting the death of J. R. Martin, 67, who was killed instantly when he fell forty feet to the ground during work with bees in a tree in the front yard of his home.

Clad in heavy clothing and wearing the conventional beekeeper's head-gear, Martin is thought to have lost his balance after becoming dizzy while standing on a limb of the tree hiving a swarm.

Inspector Lefler says this should be a warning to older beekeepers who are not as steady on their legs as they used to be.



Game Warden's Bees In Dismal Swamp

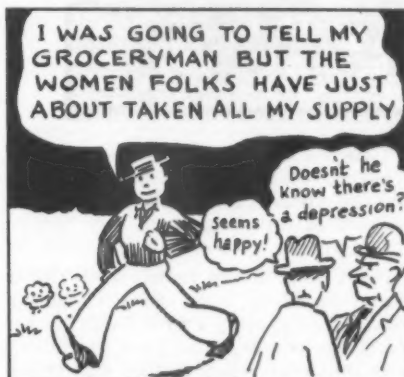
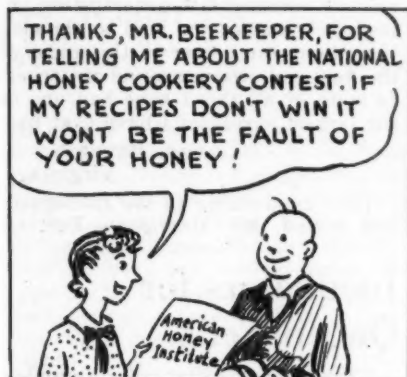
THE government has a small reservation here in the heart of the Great Dismal where the water tender, who is also game warden, may live in comfort. In a good year the flow is nearly continuous from early April until October—not heavy enough to yield a surplus during all that time, of course, but Warden Cherry reports that this year a July swarm, the next to last hive in the row, made two

supers of surplus and enough for winter.

Professional beekeepers have not considered the swamp a very good place for honey, but of late years it seems to be improving, largely as the result of fires that have burned out hundreds of acres of cutover land and have been followed by goldenrod.

Walter H. Hull,
Virginia.

Boost the Cookery Contest!



"Griz" cartoon goes right to the point of the Second National Cookery Contest, to be held in connection

with the International Meetings at Detroit, October 7-10. Competition awakens interest better than most

mediums. Get the news of this contest over to your ladies. Details appear under Institute News Notes.



National Honey Week

November 10-16, and it's just around the corner. Read over the fine help the Institute offers for this important event, detailed in Institute News Notes. Then go to it. Do your bit.

Annual Meeting of Texas Beekeepers' Association

The fifty-eighth annual meeting of the Texas Association was held in connection with the annual Short Course of the A. & M. College of Texas at College Station. A. R. Graham, of Milano, presided. The first morning's program was on the general topic of building a honey house.

Honey House Construction

It started with a paper by Roy Weaver, of Navasota. Mr. Weaver discussed the preliminary questions arising relative to honey houses. He talked from his own experience and from the experience of beekeepers for whom he had worked. The paper ended with a detailed account of an ideal honey house.

T. P. Robinson, of Bartlett, reviewed his experience in the building of several honey houses and observations which he had made on honey houses and extracting plants in various parts of Texas and other states.

Mr. Robinson and Mr. Weaver agree that a honey house or extract-

ing plant should be so built that it serve many purposes other than that of acting as a shelter during the actual removal of honey from the combs. Mr. Weaver favored a house constructed entirely of cement and iron.

Cecil E. Heard, Chief Bee Inspector, commented on the extracting plants of T. W. Burleson, Waxahachie, L. R. Nolan, Corsicana, and others with smaller numbers of colonies.

Editor Guy LeSturgeon, of the "Beekeepers Item," reviewed the growth of bee houses, honey houses and extracting plants in the state of Texas, describing vividly the extraction of honey out-of-doors without any accessories with the exception of the extractor.

Side-Line Beekeeping to Increase

The second session Monday afternoon was opened by Dr. Don O. Baird, Sam Houston Teachers' College, Huntsville, who presented a paper on beekeeping as a hobby. Dr. Baird stated that he is a teacher of scientific methods and not a scientist but he was a beekeeper for the love of it.

He gave definitions for work, play, vocation, avocation and hobby, stating that a hobby is play in which one works the hardest and secures the greatest amount of return for his labor. He says a conservative survey through the United States gives evidence that beekeeping is rapidly

following that of Europe where it is not a commercial calling but in the hands of hobbyists.

Although in Europe larger quantities of honey are produced and put on the market, honey production is not the aim of beekeeping. Bees are kept for pleasure, study and recreation. Baird predicts that within twenty-five years the honey of the United States will be produced by beekeepers who keep bees for fun and not for financial gain and that honey production will increase rather than decrease. Dr. Baird's talk was illustrated by photographs showing the construction and use of observation hives and other equipment which makes beekeeping a pleasure.

Dr. Warren Whitcomb, of the Southern States Bee Culture Laboratory, Baton Rouge, outlined the work at the Laboratory, one phase dealing with the investigation of the shipment of live bees recently completed.

E. G. LeSturgeon spoke on editing a bee journal, outlining material that is acceptable and desired by editors of beekeeping journals and urging beekeepers to collect such information and send it to their favorite bee journals.

Packages by Truck

H. E. Graham, Cameron, Texas, pioneer shipper of package bees, gave an interesting paper on the shipment of bees by truck. Mr. Graham stated that he is driven to use a better source of shipment than freight or express. He does not blame the railroads or express company. He says to ship by express it is necessary to go by wagon or truck to the apiary, get the bees, bring them home, prepare them for shipment, then take them by truck to the nearest depot,

(Please turn to page 487)



By G. H. Cale

ASTERS again and the season ends, a season unlike any that has gone before and just as certainly unlike the ones to come. Charles Dant used to say "The seasons follow one another but do not resemble each other."

Never saw such a season of contrasts. A wonderful honeyflow promise that turned to nothing; an unexpected and abundant fall flow; unusual supersedure; excessive swarming; much queenlessness; a short crop and low prices.

I believe beekeeping is the queerest business in the world.

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The following comes from Brother Alphonse Veith, St. Meinrad's Abbey, Indiana.

"In 'All Around the Bee Yard' for August you mention excessive failures in the introduction of queen bees in May. As you reported in June weather conditions were then abnormal and I think bound to make the bees discontented or even angry; apt to act different than they do during a honeyflow.

"During such abnormal conditions, bees are reluctant to accept new queens or ripe cells. If queens are to be introduced in the presence of young brood, when little honey is coming in, the surest way is to feed honey or sugar syrup when introducing. On July 11th I introduced four pure Italian queens to four hybrid colonies, nearly all of them being black. Now I hardly see a black bee going in or out of these colonies. After eight weeks there will be no black bees in these hives. If I deduct twenty-one days for all the brood to emerge which was present at the time of introducing the queen, there will be only five weeks left to show how short the life of the bee really is.

"To introduce these queens surely, I prepared for each a pepperbox feeder with sugar syrup. A fifth one was prepared to sprinkle the bees with when the hives were opened. Although the bees were rather cross, they become peaceful as soon as the syrup was sprinkled over them. Soon the old queens were found, the new queens with their attendants were laid in their cage on the frames with the syrup near them. An empty super was finally placed on top of each of these colonies and the hive closed as usual. All four queens were accepted.

In the future I will always use this way of introducing."

— o —

Last year honey from sweet clover was very heavy, even taffy-like, at the time of extracting and difficult to get from the combs. This year the honey was thin even when capped and showed some signs of fermentation. It was not removed until the end of the flow, until the bees had had the longest possible time to ripen it thoroughly.

— o —

Been to several beekeepers' meetings lately. All picnics. How the crowd turns out for something to eat. The old-time talky-talky is a thing of the past. Wonder why they don't introduce contests, games, and other innovations in our big annual meetings? Would be worth trying.

— o —

Sechrist writes that he is finding life in the South Seas interesting. He tells of the winter period when bees are still apparently flying every day but when there is little work to be done. Everything is gay and festival like. He tells of the native dances and reports one steamer unloading eighty-five visitors from the United States. Tahiti is becoming an international winter resort.

— o —

Wish I could go down there this winter. It costs too much. I imagine only millionaires and globe trotters like Sechrist can enjoy such a vacation. By the way, Sechrist has great ideas on beekeeping which we hope to publish soon in a series of articles.

A Tough Time Introducing Queens

Sometimes I feel the more experience I get the less I know. Right now I have that feeling. This season has been one of the most perverse I can clearly remember. I never had such a time introducing queens. None of the methods I know will work. I have colonies now that won't have a queen. They are hopelessly queenless yet won't have a queen of any kind.

I have killed cells in seven days and introduced a queen. Apparently the bees started cells on brood almost ready for sealing and killed the introduced queen. In one instance I just happened to see one such virgin, hard-

ly larger than a worker but distinctly queen shaped.

Bees have been ready to rob right through the flow. A load of combs robbed out last fall nevertheless immediately caused the bees to abandon their hunt for nectar in the midst of the flow and swarm around the truck. In spite of all this I have had one of the largest surpluses I have ever had.

Geo. Harrison,
Virginia.

[Try requeening in the fall broodless period, Mr. Harrison.—Editor.]

Incubators for Queen Cells

I have been rearing quite a number of queen cells during the past month (August) and having always felt the need of a safe place to store finished cells until emergence, I decided to use an ordinary incubator for the purpose.

I have found it to be fully as satisfactory as I had hoped it might be. The temperature is kept about 96° F. and the light in the incubator much subdued in the compartment in which the cells are kept. The cells and newly emerged virgins appear to be more uniformly acceptable to dequeened colonies than those which have been stored within colonies. These cells are carried to apiaries as far as forty miles away when ripe.

H. E. Weisner,
Arizona.

Crop in Washington

By C. M. Littelljohn,
Washington.

The precise status of honey production in Washington is revealed in a new book entitled "Washington State Products," recently released through the office of the secretary of state.

The progress in beekeeping is indicated by the value of honey produced in different parts of the state. Yakima County is the leader, with \$22,370 worth of honey produced at the time of the last federal census from bees in the county. Considerable increase in the industry in Yakima has occurred since the census.

Grays Harbor, a close competitor, and several other western Washington counties, with large areas of logged-off lands and tall spires of fireweed growing over fireswept pastures, show comparatively heavy volume of honey production.

In all counties of the state there is an interest in beekeeping which is especially manifest in the various exhibits at state, county and regional fairs, especially at the western Washington fair with its fine honey section and many exhibitions.

Breed for Higher Resistance

By Walter H. Hull,
Virginia.

IN regard to the question about combating *Bacillus larvae* by building up a disease-resistant strain of bees, it strikes me that we have no choice in the matter. There is, in fact, strong proof that whatever healthy bees we have are healthy more because of their ability to resist disease than because of our ability to protect them completely from disease germs.

It is a fact, whether we ignore it or not, that young bees and drones, and frequently field bees, go into any hive that is handy at certain times. If they come from a badly diseased colony some of them are sure to carry the germs of disease on their bodies. These germs would be comparatively few in number, and not in an environment where they could multiply; but they would be there, and some degree of resistance to them must be assumed. Otherwise the disease would be universal.

The same reasoning applies to colonies that are treated by shaking. We can remove the honey and wash the hive, but we can't wash the bees whose fuzzy bodies are far better harboring places for disease germs than the bare walls of the hive.

Furthermore, experiments by the Department of Agriculture, carried out with the aid of the Lindberghs and other noted aviators, prove that disease germs of various kinds are carried hundreds of miles through the air. In fact, they were collected by the Lindberghs on specially prepared plates hundreds of miles from any land. It was also found that they survived the intense cold of the stratosphere.

These conclusions are in line with our experience in disease control among animals and men. Health, whether of man, beast, insect, or plant, is nothing more nor less than the ability to resist the assaults made by disease. Naturally the fewer disease germs there are the easier it will be to resist them. That is where the benefits of cleanliness and sanitation come in—keeping the numbers of the enemy's forces down to where we can cope with them.

Instances of health successfully maintained through complete isolation from disease germs are rare, if indeed there are any such. Somewhere I read of an experiment in which a flock of baby chicks were raised in this manner, all their food and everything about them being rigorously sterilized. They proved to

be an anaemic lot, entirely worthless from a practical point of view.

This brings up the point of keeping the disease-fighting forces in good order by giving them a certain amount of exercise. It may not be a pertinent point, for when we set out to give the enemies of disease (the beneficial organisms) something to do, we never know whether they are going to be able to do it or not. Really, we don't know how much work we are giving them. Artificial meddling in this matter is therefore taboo.

But there is something to be said in favor of letting nature deal out the work. For several years past I have had no particular trouble with European foulbrood. Last summer I bought forty queens from a reliable breeder and introduced them in my yards. There can be no question of this queen breeder's integrity. But three out of the forty colonies headed by his queens developed European foulbrood within two months. If that wasn't lack of resistance, what was it?

While it appears impossible to protect any location absolutely from the germs of disease, in an area covered continuously by artificial protection the disease germs might become so few in number that the forces of resistance would grow weak. And it is conceivable (isn't it?) that queens sent out from such a locality might actually result in spreading the disease through their weakened ability to resist. At any rate, that is the best explanation I can find for my experience with European foulbrood.

The practice of spraying plants and trees with poison to keep them in a healthy condition is obviously unsound, since the poison may kill as many good germs as bad ones. A prominent local orchardist recently related his experience of the previous year. The full spraying program, he said, had failed to control certain pests. When he appealed to the Department of Agriculture they recommended doubling the program, putting in an extra spray between each two, which was done. The results were somewhat better but not entirely satisfactory. The increased expense was a serious matter. But more serious was the fact that a spray program which a few years ago was entirely adequate had now become inadequate. Summing it up he found three reasons for the trend. First, the pests were gradually building up a resistance to the poison. Second,

the natural enemies of the pests were being destroyed by the poison. Third, the natural resistance of the trees to the pests, if any such resistance existed in the tree itself, had become weakened by continued use of the poison. The problem, of course, is to find a practical system of control in which poison will not be required.

The present practice of breeding queens in localities as free as possible from disease is probably the best we can do, so long as they are bred without regard to disease-resistant qualities. But it seems high time to pay more attention to breeding for health as well as honey. The fear in some quarters that a disease-resistant strain can not be developed strikes me as a little bit absurd. Not that I know any more about *Bacillus larvae* than the other fellow; probably not as much. But this disease has been known for hundreds of years. And we still have bees. How come, then, the notion that they can't develop resistance to it?

Feeding Bees Through Hole in Inner Cover

By Alfred H. Pering,
Florida.

When feeding bees through the bee escape hole of the inner cover it is sometimes advised to turn the inner cover upside down. I wonder why this should be done. It simply makes a wider space between the top bars of the combs just under the cover and the under side of the cover itself. There is already a bee space above the frames and if this space is doubled by turning the inner cover upside down, you have a good place for building burr combs.

Perhaps bees do not have much trouble in spanning that doubled space when reaching for a foothold in order to pass up to the feed, but I imagine if the bees were able to choose they would say, "Give us the single bee space rather than two over which to stretch our legs." Also, if weather was cool the bees would be slow in going over the double space and might not reach the food at all.

There is enough space under the friction top lid of a five or ten-pound pail to allow bees to get at the small holes that are punched in the lid.



Problems in the Production of Fireweed Honey

By W. L. Arant,
Oregon.



Fire menaces these hives. There is no cleared ground for an apiary site.

FIREWEED honeyflows have two characteristics that are particularly alluring. In the first place, the honey is water-white with beautiful snow-white cappings; and, furthermore, there are times when it comes so fast that it seems like the fulfillment of the beekeeper's wildest dreams. Such a prospective honeyflow, with the added attraction of a summer vacation in the mountains, tempts beekeepers from far and near to seek fireweed range, especially if their own pastures are drying up at the time when fireweed comes into bloom.

It was such a rosy dream as this that enticed the writer ten years ago to explore the fireweed country for an apiary site. The rosy feature of the dream included great stretches of rose-pink blossoms, where bees would pile up super after super of fine white honey through the sun-lit weeks of perfect summer weather. The experience of ten years has modified the dream to include some very practical considerations. During this time we have seen a number of migratory beekeepers come and go, many of them to return no more after one, two, or three seasons, while a comparatively small number have found it profitable to continue year after year. When attempting in advance to estimate profits or losses, the following considerations are important:

The first of these is the yield. Reports of phenomenal yields, however true, are often misleading because one gets the idea that they are dependable, or even predictable. We have seen great seasonal variation in the honeyflows of the past ten seasons—total failures, mediocre flows, good ones, and only one real "flood." Altogether, the yearly average for a ten-year period is by no means phenomenal, nor perhaps even equal to that of many other nectar-bearing plants.

It does not appear that we have

made much progress in predicting the good or the poor seasons in advance of the nectar flow. We have seen good honeyflows in both wet and dry seasons, and in seasons of much and little sunshine, and almost total failures when both blossoms and plants looked thrifty. Experience has taught us to test the fireweed with a few colonies at the beginning, and to be wary about moving a larger number unless fireweed honey begins to come in positive quantities within ten days after the first blossoms appear.

Yield will be found to vary with locality, showing effects of both altitude and latitude. Apparently the yields are greater in the more northern latitudes of Washington and British Columbia, while in southern Oregon and northern California they are inconsequential. The higher eleva-

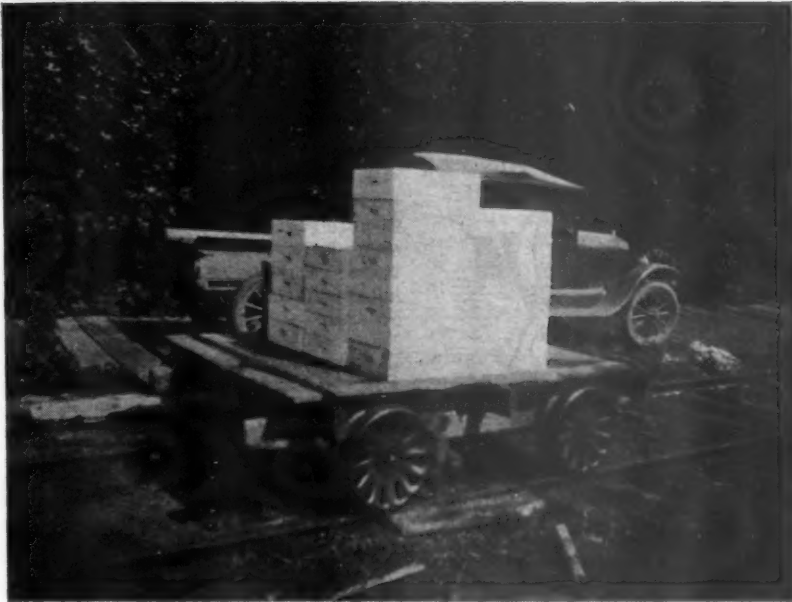
tions are generally better, but usually lacking in other flora, and often inaccessible. There are also other hazards which will be mentioned later. The lower elevations in general have the advantage of better roads, warmer weather, supplementary flora, and the possibility of wintering on the same stand, with nectar and pollen for spring brood rearing.

If one chooses higher elevations, he may secure larger yields, but will find it necessary to figure a high cost for transportation. Roads, if they exist at all, will be rough. If one is adventurous and enthusiastic, he may attempt to reach the virgin fireweed in the rugged and roadless interiors. Two methods of doing this have been used. One is to arrange with a logging company for transportation over one of their railroad spurs, which are built to haul out the timber. Aside from the cost this is seldom convenient for either the company or the beekeeper. Another consists of building one's own "highway" using an abandoned logging roadbed after rails and ties have been taken up. Usually these cross the canyons on bridges or trestles which may or may not have been burned in the last fire. If still intact they may be decked with lumber or crossed on the ties if you like the bumps.

Another consideration that can scarcely be overlooked is the danger of loss by fire. Seldom can one find a good location where this menace does not exist. The greatest loss that has come to our attention was a yard of one hundred sixty-five colonies with several tons of honey in the supers. The owner relates that after the fire only the tin rabbets and the wire of the frames remained. Other cases have been noticed where bees were hastily—even feverishly—moved in advance of an oncoming fire. To make matters more exasperating, the fire has even stopped before it reached the deserted yard!



A healthy fireweed plant in full bloom.



Where railroad track and automobile meet. This method was soon abandoned as it involved too much labor. The apiary was located further from the fireweed where it was accessible by car.

Pushing the empty supers up a logging railroad one and one-half miles to the apiary on a "hand" car. No train was running on this track.

Another factor to be dealt with at times is the appetite of the bear for honey and particularly his fondness for upsetting and tearing up colonies. The last one that paid us a visit ate sixty pounds of honey from one hive (which should have satisfied him); but he left five others upside down or strewn about. A neighboring yard had forty colonies torn up before Bruin was finally brought face to face one night with a flashlight and two guns. A tragedy occurred some years ago when one of our esteemed elderly beekeepers lost his life by being caught in a bear trap set by himself in his own mountain apiary.

The period of nectar secretion for fireweed, while varying with the season and with the elevation, is generally late July and early August. This period is practically rainless; yet the weather is no mean factor in securing a honey crop, for the mountains are cooler than the valleys, and often the temperature does not rise to a nectar-bearing point except at mid-day. This means a short working day which in August is already much shorter than in June. The greatest gains are made during the hottest weather when the air is clear, humid, and quiet. But a clear air is not here consistent with warm dry weather. Fires near or far fill the air with smoke, and this has the effect of slowing down the bees, taking away that eager zest that normally makes the hive hum with prosperity during a honeyflow.

It may seem that the trend of this argument is pessimistic, and that we have mentioned many things to discourage the prospective migrator; the uncertainty of the yield, the transportation difficulties, the danger of fire, the marauding bear, and weather conditions not always ideal. It is true that many have given



up migrating to the fireweed after one or more trials, because of some of these conditions. Yet it is a mistake to conclude that fireweed honey production cannot be made profitable. Right locations and good management, which anticipates all possible mishaps, should help in avoiding unnecessary or unforeseen losses.

The season of 1933 was one of those rare ones when fireweed nectar flowed into the hives like streams of water. The super requirements of a strong colony were amazing, and even a five-frame nucleus showed great ability to expand into the supers before the end of the season. Any colony of reasonable strength was good for one hundred fifty to two hundred pounds of surplus. In such a season it is easy to think of fireweed as something like a gold mine. Renewed

interest was shown in fireweed as evidenced by the number of bees that were moved to these pastures the following year, some being moved many hundreds of miles in expectation of a repetition of the "flood" of the year before. In many cases not a pound of surplus was obtained, and the bees even consumed some of the stores they already had. The cost of two moves had to be charged to last year's or next year's crop. Some of these beekeepers say they are through with fireweed. Perhaps they are right, for theirs is not a profitable system of producing fireweed honey from year to year unless it can absorb the poor seasons without going into the red. It must be a more permanent system, with crops and costs figured on the basis of averages rather than of maximums.

Vacation!



NOT long now, ye nectar slingers, before the gates of the South and West will be opening for your winter vacation. Not all beekeepers are so free that they can bait the wily Gulf fish or bask at Catalina, but many are and do they do it!

So "Griz" depicts the situation. Mr. B. Keeper is off for the fun while the Big Cheese and the Poor Egg must stay on for winter blasts and chores on cold mornings. After all beekeeping has some compensations besides gold and silver.

How Important Are Variations?

By Wendell T. Card,
Pennsylvania.

Something more than great prolificacy is necessary for a good queen. While I suppose no experienced beekeeper would question this, we have heard and read so much about breeding prolific queens that we may have over-reached a bit. Time and again I have had colonies raise so much brood just before, after and during the honeyflows, which are always short with us, that most of the energy of the mature bees was spent in caring for brood and gathering stores to feed it and no surplus resulted. Unless late fall conditions are unusually favorable, such colonies require feeding to survive the winter. Surely that is not desirable in a hive of any size.

It is suggested that a desirable combination may result from greater stamina and consequent longer life of workers, or exceptional working qualities. I can mention a number of factors which might come under the head of "working qualities." I am convinced that some workers either possess greater carrying capacity than others or normally use a greater portion of their carrying capacity. In the event of heavy honeyflows this factor might considerably influence the amount of honey stores. I venture the belief that the largest bees do not necessarily carry the largest loads. I have no delicate scales where-

with to check my conclusions but it would not be difficult for some experimental project.

I have often noticed the different behavior of fielders entering and leaving hives. In one hive perhaps a third will pass through the entrance in flight, both going and coming. If they do alight on hive stand or entrance board, they scramble in as fast as their legs will carry them. In another hive bees enter and leave in a leisurely fashion, perhaps flying back and forth before the entrance a bit before alighting. Is it not reasonable to suppose that a like ration of speed is maintained in flying to and from the field while gathering?

I am interested, primarily in producing high grade section honey. I have seen supers with sections started and not one complete. I have seen them with only a few started and nearly every one grade one. In other words, the bees in the last case concentrated their efforts in a way which is desirable to us. I believe this is a matter of instinct with those bees.

It may also be a matter of instinct with some colonies to maintain a relatively large amount of stores in proportion to their population, regardless of whether the population is large or small. This also would ordinarily be desirable.

I know I am on dangerous ground

in suggesting theories I cannot prove and I suppose the reaction of the average practical beekeeper would be "What the heck! If you want more honey forget this small time stuff and go plunk down another outyard somewhere."

I do not care to take issue. It has been a fascinating pastime with me to note variations from type in plants, men, animals and bees. I set down these rambling observations in the hopes that they may interest a few others.

Beekeeping in Merrie (?) England

By Penn G. Snyder,
Ohio.

The readers of the American Bee Journal may be interested in a letter I have just received from an English beekeeper whom I number among my friends. We have been communicating with one another for most a decade. I do not have his permission to have the letter put into print so I will just skim off a few of the salient points brought out and omit the name and address of the writer.

He first speaks of the heavy handicap of taxes carried by the beekeepers of Merrie (?) England. "The Minister of Agriculture several years ago induced every one he could to take up bees, but made no provision for the sale of the aggregated crops since harvested. The price dropped to the point of ruination for the beekeepers. We are struggling along in the dumps and wishing we were anywhere but here. Just fancy being taxed on haulage—petrol tax, road tax, road insurance tax, driving tax, restrictions tax until the haulage of a ton of honey and taxes on vehicle for attention to bees works out to over ten pounds per ton of honey produced." (This in American money is \$50.00 or four cents a pound in special taxes. Wow, and wow again.) Where are the American beekeepers who are complaining of the taxes of the United States?

To resume the letter: "Of course we have other taxes than these and I have only given that one section.

"All the American beekeepers who came over here attracted by the high retail prices honey had been bringing in England, have thrown their hands in and left for home. Many told me 'it was too awful a job here.' The lower prices of honey in the United States of America were much more profitable owing to our big costs, taxes, etc.

"Some years queen rearing is easy here. Other years are the reverse. One year I remember in particular, I raised virgins from mid June to the end of August and only got one

mated and that one at the end of August! Sometimes we can rear batch after batch of cells and not one mated, the expense of keeping nuclei going is big."

A big lesson can be taken from these few quotations. We often feel we might do better in some other locality. Distance always lends enchantment. It might be far more profitable for us to concentrate on our problems and difficulties where we are than to seek other locations we know not of. I truly believe all American beekeepers who have read the above will feel quite contented in contrasting their present condition and prospects with those of the beekeepers of England of today.

Late Fall Queens Are Not Expected to Lay

Commenting on the observations which have been appearing in recent months concerning requeening in the fall broodless period, O. W. Haffke, of Nebraska, says:

"Requeening in the fall broodless period may be suitable for some regions but for eastern Nebraska it would be a useless task to requeen later than September. In the fall the bees are preparing for their winter cluster with double brood chambers filled with honey and brood. How in the world is a young introduced queen going to find egg laying space in cells already filled or partially so? And if the cells were empty how is it possible to keep newly laid eggs and young larvae from becoming chilled?"

"It is only logical to assume that in the fall when the brood chambers are filled with honey, pollen and a proportion of pupae, larvae and so on, the bees are attempting to curtail laying of queens so as not to have too great a number of young larvae to take care of during winter months. When this automatic shut-off valve is being reopened by the beekeeper when replacing with empty combs, which he most certainly would be compelled to do unless his bees were on the verge of starvation, how can you explain the policy voiced when you say, 'leave the brood chamber alone in the fall'?"

Perhaps others do not understand the actual procedure and result of requeening in the early broodless period. It is not expected that queens placed in the hives at this time will lay at all until egg laying is resumed in the spring. Queens introduced in the early broodless period may possibly lay a few eggs in the very center of a cluster but these will be very few indeed.

We are not attempting to give an addition of bees from late brood to colonies so requeened. The winter cluster of bees will have resulted

from the eggs laid by the previous queen. It is, therefore, not necessary to disturb the arrangement of the winter nest at all by the removal of combs to allow brood rearing room, nor to expect the bees to produce any brood of any account from the new queen.

The object of requeening in the early broodless period is to enjoy a greater ease in finding and disposing of old queens and a greater certainty of success in introduction than is possible at any other time of the year except at the beginning of major or minor honeyflows:

The only other time of year when acceptance and ease of work is to be compared with the early fall broodless period is during the first flow from early fruit bloom in the spring.

Beeswax Salve

For a soothing, healing ointment for cuts and sores combine: Two cups lard, one cup mutton tallow, one cup beef suet, six ounces beeswax, four ounces resin, two ounces of balsam fir. Carefully try out the suet and tallow, crush the resin, melt suet, tallow and beeswax, stirring constantly. Put in resin, and stir until all dissolved, then stir constantly until mixture comes almost to a boil. Take from fire and pour in balsam fir. Then stir until cold. The stirring thickens the salve. Keep in tight containers.

Benj. Nielsen.

Packing Case for Single Hive

By W. H. Scholz,
Nebraska.

This packing case is best for those who have only one or two colonies of bees. It has a packing space of four inches at the bottom, at the sides and at the back, two inches at the front and six inches on top. The telescoped tin covered lid is practically rain-tight. A colony of bees put into one of these cases, with about thirty-five pounds of stores, will winter with great success. I wintered my bees in these cases from October 1 to May 15 and never have had any trouble with weak colonies in spring. But since I have twenty or more colonies I discontinued using them.

It is one of the most important points in beekeeping to keep the colonies as strong as possible in the number of bees and in amount of honey or food. The more packing you give them the less food it takes to keep up their vitality. When exposed to the winter weather to any extent, it would take about fifty or sixty pounds of honey, but by packing them in

News from Oklahoma

We are having pleasant cool weather—a relief from the torrid heat of the dry period. Most of the surplus honey gathered in the early summer has been disposed of to local customers.

We look forward to a fall flow of smartweed, cowpea and minor sources such as milkweed, melon and wild flowers. Some of the fall honey will probably be too dark and strong to sell and will be given to weaker colonies for food.

If the summer has been extremely dry with little honey coming in, a honeyflow in the fall is essential to insure strong colonies next spring. The honeyflow last year was almost necessary for the existence of many colonies of bees.

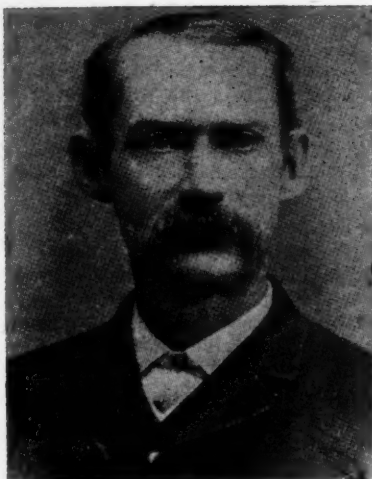
During the dry period there was much discussion concerning the injury to fruit by bees. Because bees were seen working on cracked fruit, they were accused of piercing it. The fruit was probably cracked by the hot sun or by birds.

L. J. Austin, state inspector, warns Oklahoma beekeepers to make sure their colonies have plenty of stores to see them through winter and spring. He says spring dwindling is prevalent in many colonies because of a shortage of honey. Clarence J. Tontz, Oklahoma.



this way you can winter them on thirty-five pounds easily.

This is not expensive to build and anybody with any mechanical skill can make it. And it will last almost as long as a hive under ordinary care. This case meets the need of the one or two colony beekeeper.



JAMES HEDDON

Lives of Famous Beekeepers

By Kent L. Pellett,
Iowa.



JAMES HEDDON, 1845-1911.

"He was original, not a follower of others, even in practical apiculture. This very independence of action often led him to differ radically with his brother beekeepers. . . ."—E. R. Root, 1912.

DOUGLAS JERROLD said, "After a season the world gets tired of its old, old truths, and hungering and thirsting for a good lie, will swallow anything."

The beekeepers for some time had been thirsting for such when they were told the way to produce great crops of honey was with tiny hives. Make the bees spend all their time gathering honey without bothering to reproduce themselves or to gather pollen—that was the crux of the idea embodied in what was called the contraction system.

The bee men swallowed the Heddon hive and the contraction system without bothering to chew it, to their everlasting detriment. They went out of business by the hundreds, not knowing what was wrong, or understanding how to make the system work. And today the grinning ghost refuses to be laid. The Heddon hive passed long ago, but today's apiaries have inherited many small hives made under the spell of contraction.

If this were a little drama, James Heddon might be made to play the villain, for he was the leading exponent of contraction of the brood nest; but it is more interesting to find out what was back of contraction, and why it spread among the beekeepers. Heddon was not the first to propose contraction of the brood nest, nor the last, and he was as badly duped as anybody. After fifteen years of trying to make his system produce, he was convinced that never again would there be a good honey year in Michigan.

It is human nature to find scapegoats for the abundant errors we pick up, and Heddon's name has come to be associated with contraction. Yet most of the leading beekeepers of that day were tarred with the same stick.

The inventions coming rapidly in the industry had offered the beekeepers new opportunities, but they also had brought new perplexities. The

honey extractor made large crops of honey easy, but it also made adulteration with cheap sugar products easy. The honey extractor came to be looked upon almost as a bane rather than a benefit. When the invention of comb foundation made possible the sale of attractive packages of comb honey the beekeepers left the extractor and went into the comb honey business. Almost everybody produced comb honey. Beekeepers became so busy trying to get the bees to fill out the honey sections to the very last cell that they were prone to overlook sound principles of beekeeping.

Charles Dadant had laboriously determined the exact size of hive that would accommodate the most prolific queen and had settled on his brood chambers of eleven Quinby frames. But beekeepers were too busy to pay much attention to him.

Lewis & Parkes had offered an eight-frame hive in 1879. G. M. Doolittle, who was becoming one of the most extensive producers of comb honey, had written an article about his six-frame Gallup hive, which was equal to a five-frame Langstroth hive, two years before Heddon patented his divisible brood chamber. And after Heddon's hive threatened to capture the market, the Roots and Dr. C. C. Miller together launched the cheap, eight-frame Langstroth hive. The Roots sold them all over the country by the thousands, and were still selling them long after the Heddon hive was rotting in the fence corners. All these hives were only a fraction of the size of the hive Charles Dadant had advocated, and which he continued to use, for, aggressive as he was, he was blasting through public indifference and finding a market for his extracted honey, so he was not bothered with the problems that irked the comb honey men.

James Heddon's chief fault was his abundant energy. He so ambitiously pushed the contraction system

that his name ever remained connected with it. A sandy-haired, wiry little man of remarkable nervous force, he was engaged in a hundred enterprises, and offered many beneficial improvements to the beekeepers. He and W. Z. Hutchinson, capable editor of the *Beekeepers' Review*, espoused the contraction system with such vigor and in such glowing terms that small hives captured the industry for many years. Today he is little thought of among beekeepers except for this one contribution, which was a mistake; but if he had lived after the errors connected with comb honey production had been corrected, he might well have left a name held everywhere in esteem.

James Heddon was born August 28, 1845, in Genesee County, New York. Early in life he moved west with his parents to Cass County, Michigan, where he spent the rest of his life and carried on all his enterprises. He made his first income as telegraph operator of the Michigan Central railroad, and as a dancing teacher. He was a good clog dancer, and played various musical instruments. He had a faultless ear for tone and harmony. But he apparently had an equal flair for many other occupations, for it is recorded that he was also a tinsmith, a blacksmith, and a carpenter, and that he succeeded with all.

Heddon married Miss Eva Hastings. Her father was a beekeeper. This may have influenced him to try beekeeping. That part of Michigan was a good honey region, and he made beekeeping pay, even with black bees and box hives. He became the first man in Michigan to make a specialty of beekeeping. Starting without any money, he built his apiary eventually up to 2,000 colonies, and his capital to many thousands of dollars, due solely to his beekeeping. His early success formed the cornerstone to his fortune which enabled him to enter many business ventures and become

a wealthy man. His bee supply business grew to assume world-wide proportions. For years he published Dowagiac's leading newspaper, the Dowagiac Times, of democratic persuasion, which he changed to the Dowagiac Daily News in 1897. A politician of no mean ability, he was at one time mayor of Dowagiac.

The local newspaper at the time of Heddon's death listed fourteen occupations in which he had been engaged in that locality. But Heddon had said that none of them had paid him so well as his early ventures in beekeeping.

Heddon's success led many men to keep bees in Michigan. He was looked upon as the leading Michigan beekeeper for years before he captivated people with his contraction system. His facile style of writing made him a favorite in the bee magazines, and he continually brought new things forward. He told of a short way to transfer bees from box hives to modern hives, a method still in use. He pushed a method for controlling afterswarms that was in many textbooks for years. He offered a honey board that eliminated brace-combs. He advocated the slip gear for honey extractors.

Nothing gave vent to his excitable mind better than controversy, which he enjoyed; and he attacked with an almost waspish fierceness, in print or on the platform at beekeepers' conventions, those who opposed his ideas. Few could stand up to this vitriolic little man. "He appeared to be like the gladiator of old, who, when his opponent was down, seemed to have a ghoulish glee in sticking the knife in deeper and giving it a twist," said one writer who knew him.

The Rambler, who has well characterized many of the early beekeepers, visited him in 1892, at the time he was mayor of Dowagiac. "Mr. Heddon is rapid in the use of language and emphasizes his words by muscular action," he said. "A rocking chair is made for ease and comfort; it was probably a comfort to Mr. Heddon, but the chair had a hard time of it." He was a nature lover and spent much of his spare time hunting and fishing. He had fine bird dogs and owned the first breech-loading shotgun in southwestern Michigan. His restless mind led him continually into new fields of inquiry, and he had an acquaintance with many of the sciences. He achieved some note for his learning in astronomy. He was an admirer of Robert Ingersoll and became his personal friend.

Robert H. Davis, at one time editor-in-chief of Munsey Publications and very prominent in the magazine field, said of Heddon after his death, "He gave to me the most charming intellectual companionship I have ever known, and his was as fine a soul as ever walked this vale of tears."

In the summer of 1885 Heddon wrote an article for the American Bee Journal and announced his contraction system. He already had adopted the eight-frame Langstroth hive, and now he was cutting his brood-chambers down to five frames by putting in dummy frames above that number. Only during the five weeks before the honeyflow did he take out those dummies and allow the bees full eight frames. "I think the advantages of this contracting system will be seen," he wrote, "enlarging the brood-chamber for about six weeks during the time that the queen is not only most prolific, but when such prolificness gives us bees to become field workers, just when we most need them." The brood nest would be contracted again after the honeyflow so there would not be a large number of bees to feed over winter, and the hive would be small enough so that it would be easy for the bees to heat.

At the beekeepers' convention in Detroit that December, Heddon announced he had patented a new hive with the divisible brood chamber, and that he had written a book, "Success in Bee Culture." The book and the hive were to bring about a revolution in the keeping of bees. Henceforth its operation would be not by handling frames but by handling hives.

Heddon quickly commanded a following. He advertised his hive in the journals, while his book and his articles in the journals helped to push it. The hive sold like wildfire. Beekeepers all over the country, on the alert to be progressive, began putting their bees into the cramped quarters without understanding much about the system, and throwing away their old ten-frame Langstroth hives. Even the venerable Langstroth himself after a visit to the Heddon home issued a statement in which he said he believed the Heddon hive to be a step in advance of his own.

Heddon was friendly with a backwoods beekeeper and correspondent for Gleanings named W. Z. Hutchinson who had ambitions to start a magazine of his own. Heddon encouraged him. Hutchinson began the publication of the Beekeepers' Review in 1888.

In the Review the contractionists held sway, and Hutchinson, for years a devoted pupil of Heddon, predicted that contraction would displace all other systems. And it nearly did replace all other methods for a number of years. Other bee magazines published almost as many articles on contraction as did Hutchinson.

But G. M. Doolittle, who had been one of the first men to sponsor small hives, now saw trouble ahead. The beekeepers should not be changing all the time from one system to another just for the sake of progress, he

said. "There is not in this idea all the pecuniary benefit to the beekeeper that a superficial view would lead him to expect," he suggested. Doolittle pointed out that the old hive as given to the beekeepers by Father Langstroth could "be handled just as you please," and wondered why it was the bee papers no longer recommended it. Doolittle recalled that he had started into beekeeping with only five hundred dollars, had bought with the proceeds of his bees a farm, had built for himself a home and had acquired a competence beside, without ever bothering to change from the hives in which he had started. Other beekeepers had kept themselves in debt by continually changing their systems and their hives, just for the sake of progress.

Heddon had remarkable success in the sale of his hive, and his bee supplies were selling well over the world. But all was not well with the contractionists. Beekeepers were pestered with the swarming problem, with robbing among the bees. And bees failed to winter well in the small hives in spite of the fact that these were supposed to offer superior advantages for wintering. Many lost their entire stocks during the cold months and left beekeeping in disgust. And in parts of the country where honey had been produced abundantly, yields became poorer year by year. Colonies in Michigan once had averaged eighty or a hundred pounds of honey, but now their distracted owners could not gather over thirty, or even ten. There were many empty hives standing about farmyards.

Heddon lost a large part of his own bees by winter killing. He, too, was hampered by the poor seasons. He told George Demuth of the United States Department of Agriculture who visited him in the late nineties, that he had given up hope of ever getting another crop of honey in Michigan, that there had not been a good season for fifteen years. And Editor Hutchinson did no better. He admitted in the Review that he had not harvested over twenty pounds of honey as a colony average in five years.

The question of what to do if the poor seasons should continue came up again and again in the journals. Heddon settled the question as far as he was concerned by leaving the bee business entirely in company with hundreds of his followers. He became the inventor of a new kind of minnow bait that was very successful, and established with his sons the James Heddon Company in 1901. This company is still in business, selling fishing tackle and sportsmen's supplies, under the name of James Heddon's Sons.

FROM THE LITTLE BLUE KITCHEN



By Lida Keck-Wiggins

NOW that the crispy days are here again and something "nice and hot" is not amiss even at dessert time, why not try this recipe and serve gingerbread and, say, apple sauce or any stewed fruit for dessert some day?

1 cup sugar, 1 cup sour milk, 1 cup raisins, 2 even teaspoonfuls ginger $\frac{1}{2}$ teaspoonful allspice, 3 cups of flour, 1 cup butter, 1 cup extracted honey, 2 even teaspoonfuls soda, 2 even teaspoonfuls cinnamon and 4 eggs thoroughly beaten.

In making this batter add eggs last. Bake in shallow tin with buttered paper on bottom. Bake in moderate oven 40 to 45 minutes. It may need a shade more of flour. This you will be able to decide when stirring the mixture. The soda is dissolved in tepid water so as to be sure it is not lumpy.

For frosting use $\frac{2}{3}$ cup of brown sugar and $\frac{2}{3}$ tablespoon of cinnamon. Sift on dry with fingers just before putting in oven.

This ginger cake is also very delicious cut in squares served cold at regular meals, or for a party lunch.

And, speaking of apple desserts, Honey Lady is reminded to pass along an apple-honey recipe which if followed will make for you a decidedly "different" and delicious one. It is called

Apple Meringue.

2 cups steamed apple pulp, $\frac{1}{2}$ cup honey, 1 teaspoonful butter, $\frac{1}{2}$ teaspoonful cinnamon or nutmeg. Add yolks of 2 eggs slightly beaten, and one tablespoonful of thick cream. Fill a deep pie tin lined with crust, and bake without an upper crust. Make a meringue of the whites of 2 eggs and 2 tablespoonfuls of sugar. Brown in a very moderate oven.

Apple Whip is another nice apple dish; and it is a nice way to make use of one's apple supply and yet give the family something a little different from the ordinary ways. You can make it this way:

Pare, quarter and core four sour apples, steam until tender, rub through a sieve, when you ought to have about $\frac{3}{4}$ of a cup of pulp. Beat the whites of 3 eggs, gradually add

the apple pulp, sweetened with clover, or other mild nectared honey, and continue beating. Pile lightly on a serving dish and chill in refrigerator. Serve this with the richest cream you can afford. It is nice also with soft custard poured over it.

A Bee Line to good health is to follow the custom of the ancients and eat a lot of honey in place of cane sugar. Also plenty of fresh milk, fresh fruit, and "loads" of leafy vegetables. You'll then be supplying your systems with many of vitamins A. B. C. and D.

In response to an inquiry for a recipe for boiled salad dressing, Honey Lady begs to offer the following:

Boiled Salad Dressing, Honey-Sweetened.

Scald 1 cup of milk in double boiler. Blend 3 tablespoonfuls of flour, 1 teaspoonful of mustard, 2 teaspoonfuls salt, 1 teaspoonful strongly flavored honey and a dash of cayenne. Add to the slightly beaten yolks of 2 eggs. Pour the hot milk slowly over the egg mixture, stirring constantly. Return to the double boiler and cook until it thickens; add, slowly, $\frac{1}{2}$ cup of vinegar and 1 tablespoon of butter. Whip in a little at a time the well beaten whites of eggs. Strain into glasses or glass jars. This dressing will keep several weeks if in a cool place, and indefinitely if one has electric refrigeration.

From Nancy Dorries, Honey Lady learned that beets, cooked until the skins may be peeled off quickly, and then covered with a sauce made of 2 tablespoons strained honey, 2 tablespoons dry mustard, juice 1 large lemon, $\frac{1}{2}$ teaspoonful salt, (this having been combined, placed in a double boiler and allowed to heat, not boil).

The beets thus treated should be served hot, and any leftovers stored in a covered jar in ice-box to be used as a relish with cold meats.

Honey Lady learned upon a recent visit to the New York State College of Agriculture at Cornell University, that a careful inquiry among con-

fectioners, using honey in making candies, that the most popular honey confection is the nougat. In view of this Honey Lady is passing along a fine recipe for

Honey Nougat.

$\frac{3}{4}$ cup of honey, $\frac{1}{2}$ cup brown sugar, 1 pound almonds and 2 egg whites. Boil the honey and sugar together until drops of the mixture hold their shape when poured into cold water. Add the whites of the eggs, well beaten, and cook very slowly, stirring constantly, until the mixture becomes brittle when dropped into water. Add the almonds and cool under a weight. The candy can be broken into pieces or may be cut and wrapped in cellophane or wax paper.

This is a Blue Kitchen "laboratory proved" recipe and will not disappoint you.

A reader of Blue Kitchen, who unfortunately has to be on diet for an arthritis condition, writes giving us two "sample" breakfasts prescribed for her by her physician. Honey Lady gladly does as she suggests, and passes them along.

Breakfast No. 1 is as follows: Boiled rice or Wheatena or Shredded Wheat with butter and honey, milk, buttermilk, or Postum.

Breakfast No. 2: Whole wheat bread, wheaten crackers, butter, honey, Postum or milk.

This Blue Kitchen reader adds "I use honey with every breakfast menu for sweetening cereals and Postum. My doctor also recommends the use of honey for sweetening for patients suffering from superacidity in any form."

A health dessert for kiddies is toast spread with honey.

A nice way to vary cottage cheese is to sweeten it with mild honey. This makes a really delicious sandwich spread, incidentally!

Nectar Bearing Trees for Highways

In relation to this subject Jas. I. Hambleton, Senior Apiculturist at Washington, has this to say:

"I have made inquiry of several offices I thought logically would have something to do with a project of this kind and learned that all of this work is initiated in the State Highway Departments. Each State Highway Department has its own landscape crew and tree experts. They initiate plans, which in turn are submitted to the Bureau of Public Roads, in Washington, for approval.

"Beekeepers, therefore, interested in the use of nectar bearing trees on state highways should call the matter to the attention of their own State Highway Department."

Meetings and Events

(Continued from page 477)

here to be unloaded and picked up by a train at almost any hour.

They may go straight to their destination or they may have to be transferred six or eight times. At the other end the reverse process of taking the bees from the depot to the plant of the buyer and finally to the bee yard must occur.

Three years ago Mr. Graham worked out a system for his own shipments. Having had experience in the North, he decided to obtain a dependable heavy truck and for early shipments to protect the bees from cold, two tarpaulins.

He said that his first trip was made in April. The bees were loaded at the apiary directly to the truck, covered with tarpaulins, and Mr. Graham and a mechanic started for Canada. The truck never stopped except for gasoline.

Snow flurries were encountered, as well as cold rain and wind; however, the bees were delivered to the apiary without the loss of a single package. The return trip was made at the same speed for another shipment.

Mr. Graham says that in two years of hauling bees by truck his success has been far beyond what he had expected, the cost of transportation being slightly more than express but the time of delivery much less and loss of bees considerably less. Taken altogether the saving of time and labor at both ends, the saving of bees and rapid, safe delivery makes Mr. Graham give his preference to shipping by truck.

Horsemint Research

H. B. Parks, Apicultural Research Laboratory, San Antonio, gave an account of the investigation of horsemint during the past eighteen years. He told of a survey made last summer in which most of the state of Texas was covered. The information gained explained many things of interest to the beekeepers in the differences in the quality of honey which goes under the name of horsemint.

This survey was made with the idea of seeking those lands that produce horsemint honey during the majority of years and so increasing the production of it in those sections with the idea of honey production and also the recovery of oil from the ripened horsemint plants.

Monday night occurred the Beekeepers' Buzz. An examination in botany was given to about eighty people. Twenty-five plants were placed at intervals in the room. The audience examined the plants and wrote their names. The first prize was awarded to Mrs. Hill, of Beaumont, a writer on nature for magazines. The prize was an enormous package. On opening it Mrs. Hill discovered a large sack filled to the

brim. It proved to be filled with hot air. In the bottom of the box was a package wrapped in tissue paper, which when unwrapped proved to hold a piece of steel about seven inches long.

Mrs. Hill was nonplused and said she did not know what it was but thought it might be good to pound nails. After a hearty laugh one of the faculty ladies explained that it was an uncapping knife.

Dr. S. W. Bilsing gave an illustrated lecture on the popular subject of the Black Widow.

Tuesday morning Arthur Hodges, Sam Houston Teachers' College, Huntsville, read a paper on "Bees As I See and Feel Them," giving an interesting account of what had been done in the biology laboratory at Huntsville. Cecil E. Heard outlined the accomplishments of his division during the year, and Dr. Thomas gave a summary of what has been said in the beekeeping press relative to the development of a strain of bees resistant to American foulbrood.

Dr. Thomas proposes a plan whereby the Federal Bee Culture Laboratory may take up a long time program with the object of securing a resistant or immune strain.

A. R. Graham, Milano, was elected president; Arthur Hodges, Huntsville, vice-president; H. B. Parks, secretary-treasure; T. W. Burleson, delegate to the American Honey Producers' League; E. G. Le Sturgeon, alternate; E. G. LeSturgeon, delegate,

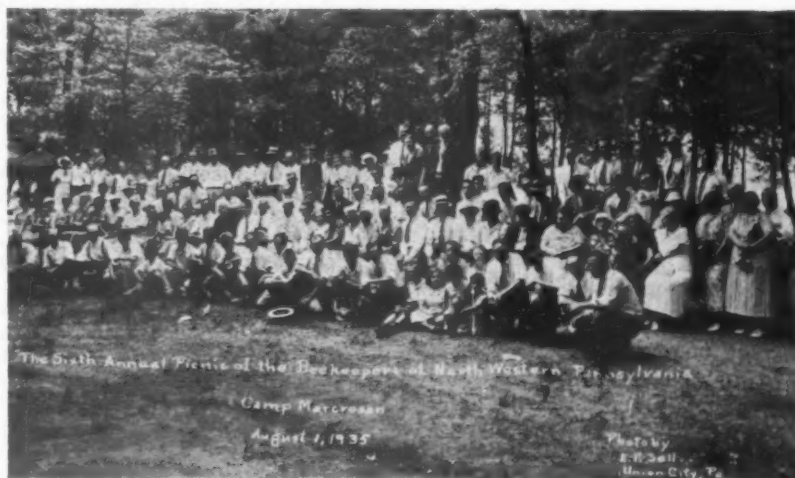
Southern Beekeeping Conference; Whitman Coffey, Whitsett, alternate.

Reported by H. B. Parks,
San Antonio, Texas.

Wabash Valley Roundup

The biggest and finest beekeepers' meeting of any kind ever held in Indiana was held at the home of L. R. Stewart, Saturday, September 14, where some 250 beekeepers from fifty-three Illinois and Indiana towns and cities, their families and friends gathered for a day of feasting and fine programs. There were visitors from twenty Indiana counties and nine Illinois; there were miles of groaning tables augmented by 128 pounds of Wabash fish, a load of watermelons, fifteen gallons of ice tea, nine gallons of coffee and a well of water; there was accordian music by a Clinton orchestra, "Bob White" of Chicago and the Killion boys of Paris, Illinois; there were practical demonstrations by J. E. Starkey of Indianapolis; Herman McConnell of Robinson, Illinois; Chas. Kruse of Paris, Illinois; Clinton Walthall of Newport; Otto Harpold of Rosedale; B. H. Wilkins of New Augusta and L. D. Murray of Eugene. There were seven Illinois and Indiana apiary inspectors present—C. L. Duax of Chicago, Chief Illinois Inspector and deputies, James Kannmacher of Martinsville and Herman Denhart of St. Joseph; and Chief Inspector Jas. E. Starkey of Indianapolis; A. O. Smith of Mt. Vernon; B. H. Wilkins of New

Pennsylvania Beekeepers At Lake Canadohta



HERE is a picture of the group attending the summer meeting of the Pennsylvania Beekeepers' Association at Lake Canadohta. It was a well attended meeting. Everybody certainly had a fine time. Summer

meetings are high spots with their picnics, contests and fun—much better than the old meetings. This picture was sent us by Jere Frazer, of the Lewis Company branch at Wheeling, West Virginia.

August and G. L. Hodson of Amboy.

But the best part of the entire day was the fine array of speakers present. There never was and probably never will be again at any meeting less than national in scope as much talent as was assembled on L. R. Stewart's lawn Saturday. There was that great beekeeper, teacher and editor, G. H. Cale of the American Bee Journal; Jas. C. Dadant, scion of the famous Dadant family; Dr. J. J. Davis of Purdue, one of the nation's best, if not best Entomologists; Drs. M. D. Farrar and V. G. Milum of Illinois University, the latter head of the Apiculture Department of University of Illinois; Chas. Kruse and Carl Killion of Paris, Illinois, the world's best comb honey producers; Dr. Ben H. Smith, a prominent botanist of Indiana State Teachers; Herman McConnell of Robinson, Illinois, one of the country's finest queen bee breeders; W. M. Weber of Huntington, President of the Indiana Beekeepers' Ass'n.; Rev. J. W. G. Bockstahler of Evansville and many others equally as important that could not be heard for lack of time. Mrs. C. L. Duax of Chicago gave the ladies a talk.

There were ten entries in the cake contest which was judged by Anna Wilcox of the Domestic Science Department of Newport High School. Mrs. Homer L. Godwin of Emison, Indiana, won first and Mrs. L. A. Litsey of Marshall, Indiana, second. There was a big table of honey displayed. Best case white comb honey was shown by Ralph Simms of Rankin, Illinois; second, Carl Killion, Paris, Illinois. Best case amber comb honey, W. R. Stephens, Wingate, Indiana. Best dozen sixteen-ounce jars white honey, W. R. Stephens; second, D. R. Stephens of New Richmond, Indiana. Best dozen sixteen-ounce jars amber honey, D. R. Stephens; second, W. R. Stephens.

Herman McConnell of Robinson, Illinois, donated twenty queens which were sold by auctioneer Chas. Kruse for \$15.20 and proceeds given to American Honey Institute.

L. R. Stewart, Indiana.

Missouri Beekeepers at Farmers' Week Program, October 8-10

Missouri beekeepers will hold a three-day program at the Missouri College of Agriculture, October 8-10. On Tuesday there will be lectures and demonstrations, including the government film "The Realm of the Honey-bee"; How to make a start in beekeeping; Bees and horticulture; Extracting and caring for surplus honey; Apiary management; and a round-table discussion.

The second day, fall management; providing more permanent pasture in Missouri; informal conferences on beekeeping problems. The third day, a general session of all departments of the college.

Wisconsin Occupational Tax

A new Wisconsin law relating to an occupational tax on bees became effective August 12, imposing an annual tax on every person, firm or corporation owning one or more colonies of bees of twenty-five cents for the first colony and ten cents for each colony thereafter. Bees and all bee equipment are exempt from property tax.

The tax is arrived at by the assessor and collected like personal property taxes. It is provided that fifty per cent of the tax be retained by the taxation district in which the bees are kept, and the balance goes to the state treasurer in the same manner as state taxes on property are paid.

The money so collected and returned to the state treasurer is to be used by the Department of Agriculture and Markets for the regulation and inspection of apiaries.

Wisconsin Trade News Bureau.

New Officers of Saskatchewan Association

George Murray, Saltcoats, was elected president of the Saskatchewan Association in a recent meeting at Regina, succeeding Frank Amas, Qu'Appelle. Other officers: Hon. president, His Honor Lieut.-Gov. H. E. Munroe; vice-president, P. C. Colquhoun, Maple Creek; secretary-treasurer, R. M. Pugh, Regina; assistant secretary, A. I. Smith, Regina; directors, J. Hubbard, Grenfell; Mrs. W. E. Carey, Windthorst; F. Amas, Qu'Appelle; W. L. Donovan, Crichton, and H. E. Hill, Heward.

F. H. Fullerton,
British Columbia.

Fined for Violating Apiary Act

Michael Pinton appeared before Magistrate Bell at Matsqui, British Columbia, recently, on a charge of violating the Apiaries Act with regard to non-registration of his apiary. He was fined the minimum fine and costs for the offense.

According to Apiarist A. W. Finlay, the bees had been brought into Matsqui without the necessary certificate of inspection and, being diseased, were a menace to adjacent beekeepers in an otherwise clean district. Because of the promptness of Mr. Pinton in destroying the diseased colonies on notification, additional charges of violating the act in other respects were dropped.

F. H. Fullerton,
British Columbia.

Utah Association May Meet in November

The Utah State Beekeepers' Association may set their 1936 convention ahead, and instead of holding sessions in January, may meet in November. The gathering would be held to coin-

cide with a western tour of Mrs. Jensen of American Honey Institute.

Glen Perrins,
Utah.

St. Louis and St. Louis County Association

St. Louis and St. Louis County Beekeepers' Association has been organized with headquarters at Clayton, Missouri. Officers: H. C. Irish, president; G. L. Hankammer, vice-president; F. Kruempelman, treasurer; John McAnnar, secretary; board member, A. Fitzgerald. Meetings every third Tuesday.

Reported by

Geo. L. Hankammer.

Montgomery, Bond and Fayette (Ill.) Meeting

Beekeepers of Montgomery, Bond and Fayette Counties met at the apiary of Harold Laughlin near Butler, Illinois, Sunday afternoon, September 15th. As usual an informal gathering with plenty of demonstrations under the direction of that able secretary, Wesley W. Osborn, of Hillsboro. There was a generous supply of honey sweetened soda water made by a local manufacturing concern. This is reported to be a great success and the sales satisfactory.

There were a number of formal talks and a visit to Mr. Laughlin's apiary. Mr. Laughlin is a farmer-beekeeper with about a hundred colonies of bees, kept right to produce maximum crops. Mr. Laughlin says the bees are one of the best paying items on the farm and he farms about 250 acres. This demonstrates that farming and beekeeping can go together.

Sheboygan County Report

H. F. Wilson, University of Wisconsin; C. D. Adams, Department of Agriculture and Markets, and Ivan Whiting, inspector of apiaries, addressed the monthly meeting of the Sheboygan Association, September 7, in Plymouth.

Prof. Wilson reviewed the honey situation, declaring there appears to be a smaller amount of honey this year than usual and emphasizing that beekeepers should not be selling at a low price but hold a little longer in view of the scarcity of honey.

The desirability of continuing inspection work, despite the fact that American foulbrood is fairly well cleaned up in Sheboygan County, was emphasized by Mr. Adams. Mr. Whiting outlined the results of his inspection in the county, declaring that the disease is pretty well localized.

Oscar Kazmeier, president, announced that the annual meeting of the association will be held in November.

Wisconsin Trade News Bureau.

Report of Florida Convention

The annual convention of the Florida Association was held in the Cocoa convention hall with President Lynn M. Dewey, of Orsino, presiding. Delegates from most of the best honey producing districts were present, a total of about a hundred.

Mrs. Eunice F. Gay and her 4-H Club girls furnished homecooked products with honey used as the sweetening agent. The principal drink was guava juice sweetened with honey. It was relished very highly, judging from the amount used.

The usual fish fry was enjoyed too, under the supervision of G. C. Carhino, served on the beach, with surf bathing and swimming. At night a musical and literary program was given under the supervision of Mrs. J. B. Waller.

Reported by Alfred H. Pering,
Florida.

Splendid Exhibit at Canada Pacific Exhibition

The exhibit staged by the British Columbia Honey Producers' Association at the Canada Pacific Exhibition in Vancouver was more than ten times larger than at the fair last year. No other exhibit showed such a vast increase and beekeepers hope a permanent booth will now be retained at the fair to raise the standard of the yearly displays.

The Association this year had considerable space in the Pure Foods Building and staged demonstrations and short talks on beekeeping. A regulation colony was housed in a fine wire-mesh screen in one corner of the exhibit booth and the bees were used in the demonstrations.

Considerable improvement in honey production is reported by exhibitors. The Producers' Association has more members than at any time in its history. A local branch has been formed at Vancouver also.

Despite the fact that some localities suffered from a poor season, the total production for the province will be greater than last year. The area north of the Fraser River, and the Kootenay and Okanagan districts have had the highest production.

Sixteen classes were given rewards in the judging, Mr. and Mrs. J. R. Street, of Port Hammond, securing the Gold Medal Certificate for the honey scoring the highest points. Mr. Street is totally blind but is able to carry on his beekeeping with the aid of his sensitive fingers. He was in charge of one of the bee-handling demonstrations at the Exhibition.

Prize awards were as follows: Light honey (12 jars), first prize, A. Keir, Route 1, New Westminster; Amber honey (12 jars), first prize, Mrs. W. R. Denman, Ladner; Light honey (50 jars), first prize, David W. Poppy, Route 1, Coghlan; Amber honey (50 jars), first prize, Mrs. J. R. Street;

Honey and beeswax (best display, not less than 150 lbs.), first prize, M. V. Jenks; Honey (chunk), first prize, G. F. Pearcey; Honey (granulated), first prize, G. H. Saunders; Honey (in comb), first prize, G. F. Pearcey; Beeswax, first prize, A. Keir; Best and most attractive display of 75 pounds of honey, first prize, J. H. Holt; Best quart of honey vinegar, first prize, J. H. Holt; Best display of 300 pounds or more honey, first prize, G. F. Pearcey; Best and most attractive display of comb honey, first prize, G. F. Pearcey; Best frame of honey, first prize, J. H. Holt; Best 10 jars honey, first prize, David W. Poppy; Honey scoring the highest points (special), Mrs. J. R. Street.

F. H. Fullerton,
British Columbia.

Northern Illinois Meeting

Anyone who has been at the apiary of Lee Horning, at Morrison, Illinois, will know that it is one of the show places of the state. It was the writer's first visit there at a beekeepers' picnic comprising the four counties of Jo Daviess, Stephenson, Carroll and Whiteside of District No. 1 of Illinois.

A beautiful sunny September day (September 10), a good crowd of some sixty ladies and gentlemen and the picnic dinner out on the lawn.

Mr. Horning has everything in which you could call "apple pie order"—his bees, his rock garden and his many mechanical contrivances in which he takes so much pride.

Mr. C. W. Duerrstein presided at the meeting.

Talks were given by Mr. S. S. Claussen on the State Fair exhibits, by Mr. C. L. Duax on the Inspection Work in the State, by M. G. Dadant on Disease Resistance and related subjects, by Mrs. S. S. Claussen on radio broadcasting, about honey, and a short talk by Mrs. Duax on the Illinois honey foundation.

As happened in so many parts of Illinois, the early honey crop has not been good in this northwest section but the fall crop during early September has been satisfactory and should the weather continue after this article is written (September 12), no doubt, a fine fall crop will be secured.

Following the Morrison meeting, a meeting of the Henry County Association was held at Andover on September 11 in Andover Park, another delightful spot and a delightful day. Although only a comparatively small group were present, the picnic dinner and the round-table discussion afterwards was very interesting.

The honeyflow was on from heartease and bees were coming in heavily laden. In fact some beekeepers were reporting having to extract to furnish

supers enough for the balance of the flow.

Kansas Beekeepers in Convention

The annual election of officers and talk fest of the Kansas State Beekeepers' Association was held at Topeka, August 11. Attendance was liberal, the meeting being held in the open air and shade of Washburn Park. A picnic dinner was followed by entertaining musical numbers by Topeka youngsters, and "sage" discussion by members of serious problems confronting the apiary industry. As usual, American foulbrood occupied the front of the stage, and beekeepers are not at all unanimous on treatment but burning has more advocates than other "cures."

Then, too, our Association is divided on the policy of bee inspection. Many—and they are in the majority, it would seem—uphold the present law placing control and financial support in the state. Others contend for decentralized control in the hands of county commissioner boards. More harmony was in evidence this year, and beekeeping is more and more in Kansas passing into the hands of the commercial producer.

The balloting resulted in the election of Mr. O. A. Keene, of Topeka, as president. Mr. Keene has been long and favorably identified with the work of the association, and his selection places the president geographically in a pivotal position. The secretary-treasurer, H. W. Stewart, of Highland, represents the largest honey producing county in the state.

H. W. Stewart.

Mo. State Fair Recipes

Honey Muffins

- 1 cup flour
- 1 cup bran
- 2 tablespoons honey
- 1/3 cup raisins
- 1 cup milk
- 1 heaping teaspoon baking powder
- 1 teaspoon salt
- 1 teaspoon melted lard
- 1 egg.

Honey Graham or Whole Wheat Bread

- 1 cup liquid
- 1 tablespoon fat
- 1 tablespoon honey
- 1 teaspoon salt
- ¾ dry yeast cake or ¼ cake compressed yeast or ¼ cup liquid yeast
- 3 to 4 cups flour.

Honey Cinnamon Rolls

- 1 cup yeast
- ¾ cup honey
- 3 cups flour
- 1 ½ cups sweet milk
- 1 egg

Roll dough, cover with honey, cinnamon, butter. Roll up, and cut.

THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

NEARNESS TO NECTAR SOURCE

1. How much less honey will bees gather when they are a half mile from where the most of the nectar supply is than they would if they were in the center of the nectar supply?

2. Are many bees lost and killed during a hail storm?

3. Do you think that it would pay to operate an apiary from one-half to three-quarter mile from a good alfalfa and clover field?

NEBRASKA.

Answer.—1. During the honey crop, when the weather is warm, we do not think that it makes much difference if the bees are a half mile from the field, because it does not take them long to travel a half mile. But when the days are rather cool, there may be danger of losses of bees. That is why they advise to place apiaries close to the fruit trees when they are in bloom.

2. Just what proportion of the bees are killed in a hail storm, I would be unable to say, for there are all kinds of hail storms; of course some would probably be killed.

3. Yes, I believe it would pay to keep bees within one-half to three-quarter mile from an alfalfa or clover field. Of course it would be still better to have them close to it. But I had it from Quinby and his son-in-law, L. C. Root, who were good authorities, that bees were known by them to harvest honey from basswood trees seven miles away. Of course it could not be as profitable as if they had been within the basswood timber.

COLOR OF ITALIANS

I should be pleased if you would let me know, in detail, the color and markings of Italian queens and drones.

There is a great variation in queens which I have received and I wish to know which are nearest to the standard of perfection if one has been set.

CANADA.

Answer.—The color of queens and drones of the Italian and other races varies a great deal. I have seen pure Italian queens that were as dark as some queens of the common black bee.

Some people have set a standard of perfection. In fact some people sell Italian queens that are beauties. But I do not think that they are any better than some much darker in color. The great point is to have them of the pure race and purely mated.

The Italian worker bees must have three yellow rings. These rings may be of leather color or very bright. Personally, I do not care for very yellow bees, because in a great many instances they have been bred most especially for color, regardless of other qualities.

COST OF PRODUCING HONEY

1. Can you give any data on the cost of producing honey (extracted honey, comb honey)?

2. What is the average cost of packing honey into five-pound pails, ten-pound pails, and sixty-pound cans?

3. What is the cost of labeling cans, not including labels?

The above questions are meant for the average beekeeper of say from sixty hives to four hundred.

4. Being a believer in being fair to both producer and consumer, and knowing just about what it is costing me to produce honey, I am attempting to find out how it is that honey can be sold at Fargo, North Da-

kota, for thirty-five cents a five-pound pail, retail.

NORTH DAKOTA.

Answer.—1. The cost of producing honey varies so much in different localities that it is out of the question to give any definite data. It will vary from eight to ten cents on extracted honey and from sixteen to twenty cents on comb honey.

2. The cost of packing honey in pails, if one had it in liquid form in a tank, is very low, probably not over ten cents per cwt., especially in large cans.

3. The cost of putting on labels is also very low, probably not over a cent per label.

4. When it comes to criticizing the fellow who sells his honey at any price, just to get rid of it, we are tired of doing it. Probably the best way to put an end to this is to purchase the honey of the low price man and sell it yourself.

HONEY EVAPORATION

Removing the honey from combs and placing it into a sixty-pound steel container and placing same near normal heat, covered with cloth, leaving it near heat for twenty-three days I find that the honey had lowered itself three inches from a container of twelve inch diameter and fourteen inches high. May I be informed what has caused the honey to lower itself three inches? Should I assume that it has vaporized or settled down by fermentation?

PENNSYLVANIA.

Answer.—It is out of the question for honey to lose three inches out of fourteen by evaporation in twenty-three days. Some of it must have been lifted out of the top of the container. An evaporation of ten per cent would be more than could be expected, unless the honey contained a lot of water.

PROTECTING THE NEIGHBOR

I live just outside of town and have twenty hives of bees, ten of which are within ten feet of my property line. My neighbor intends putting corn here this summer. I do not want to move my bees, neither do I want him to get stung. What can I do to prevent it? I have been told that I could build a fence between us, and my bees would not sting him. If so, will you please tell me how to build it? I do not care for looks. Would it have to be a tight fence?

Could you give me the address of some society that I could join and if my bees got in trouble the society would protect me?

ILLINOIS.

Answer.—I have seen an apiary in Peoria, located within ten feet of a neighbor's house. The partition fence was made of chicken fence of half-inch mesh, ten or twelve feet high. The bees apparently could not easily fly across that fence and when they flew ten feet up, they were out of the reach of human beings. I believe if you have such a fence, it will make matters safe for your neighbor, although I would rather see your hives twenty feet or more away. It is of some importance to have the hives facing the other way.

As for getting protection from an association, if your bees are too close to the line, I doubt that it can be done, for your neighbor has the right to be protected from stings as long as he stays on his land.

Give your neighbor some honey and beg him not to work with a horse close to the spot where the bees are during the warm part of the day.

GRAFTING QUEEN CELLS

1. In grafting queen cells how can one be sure that the larvae are not over twenty-four hours old?

2. Can eggs be used instead of larvae?

3. Will a strong colony accept a ripe queen cell without cell protector if you first remove their queen?

4. After removing queen how soon should they be given a queen cell?

5. What are the chances of a virgin queen being mated as late as September 1 in northern Ohio?

OHIO.

Answer.—1. Larvae about the size of a lettuce seed are usually thought to be about right. However, I usually use the smallest ones which I can handle readily.

2. Eggs are as good as larvae for rearing queens but it is not so easy to move them. They are so small that it is very difficult to transfer them without injury. Some queen breeders use the Alley plan of cutting strips of new comb containing eggs and allowing the bees to build cells without having to transfer the cells to new cells. You will find this method fully described in the book "Practical Queen Rearing."

3. A colony will usually accept a ripe cell if one waits a few hours after removing the old queen until the bees become conscious of her loss.

4. Twenty-four hours is the best time usually recommended to wait before giving a cell after the old queen is removed. It is safer to use a protector.

5. I would think that virgin queens might have very good chances to mate as late as September first in northern Ohio. You should be able to judge by the number of drones still flying.

STORING EXTRACTING COMBS

I would like to have some information as to how and where to store extracting combs after the honey has been extracted so they are safe from moths? Is there any danger of the combs moulding if supers are racked tight on top of one another in a dry room?

VIRGINIA.

Answer.—We return the extracting combs to the bees, after extracting. The bees clean them and keep the moths away from them. When winter gets near, we remove those dry combs and place them in a dry spot in a clean room where there is no danger from mice. In spring they are ready for the bees again.

If these instructions are followed, there is no danger of the combs moulding in a dry room.

BEEES CLUSTERING OUTSIDE

Please tell me all the reasons for bees clustering outside of the hive.

I have a hive of bees that have done well until recently. Now they have started to cluster outside the hive. The hive has three stories and a good number of bees. The hive is not crowded, it only has ten or twelve combs of honey, some pollen, little young brood, and a fair supply of hatching brood. Of the eggs I find, most of them lie down on side of cell, in some cases two to five eggs in a cell. The colony is queen-right, but the queen looks to be an old failing queen, or a virgin.

ARIZONA.

Answer.—I believe the only trouble with that hive of bees is the need of more ventilation, as the weather is getting hotter. Set one of the supers back an inch or a little more, so that the bees may be able to fan the inside of the hive from that opening.

If there are more than one egg in each cell, this would indicate that the queen is a young one. She will learn better by and by.

HONEY VINEGAR

Could you supply me with the recipe for making vinegar from honey. I remember reading such a recipe in the Bee Journal

about eighteen months or so ago. I think it was April or February number of 1933.

IOWA.

Answer.—Vinegar may be made from honey and water, by mixing from one to two pounds of honey with a gallon of water and keeping it warm at a temperature not under seventy degrees. Fruit juice had better be mixed with the liquid to start the fermentation. The liquid should be kept in open vessels with a cloth over the top, to prevent the falling in of insects.

If after the fermentation is well started, it does not sour, a little vinegar should be added. But the alcoholic fermentation should take place first.

Very good vinegar may be made from the washings of articles which have contained honey.

FEEDING TO PRODUCE COMB HONEY

Can one successfully feed extracted honey to produce comb honey in sections?

Mine is a poor comb honey locality but I have a local market for a certain amount which I would like to produce.

What do you think of the plan of feeding during the honeyflow so sections will be filled more quickly? Of course, bees would only work on feeders when the weather was not right for nectar gathering.

Would the amount of labor make the thing unprofitable with comb honey twenty-five cents and extracted fifteen cents?

INDIANA.

Answer.—Honey may be fed to bees to build comb but it does not pay, for the comb costs the bees from seven to fifteen pounds of honey for each pound of comb. You can readily understand that it does not pay to spend honey to build comb.

When the bees are harvesting honey, they always produce more or less wax; this wax would probably have to be lost if they did not use it for building or capping the combs. But when they are fed, so much of the food goes into building comb that it is unprofitable.

That is why the making of comb foundation to save the bees that much work is a profitable business.

The best thing you can do to secure plenty of sections is to give the bees foundation in those sections and favor the making of comb honey by placing the sections to be built in the warmest part of the super.

Comb honey costs the bees fully twice as much as extracted honey and ought to sell that much higher.

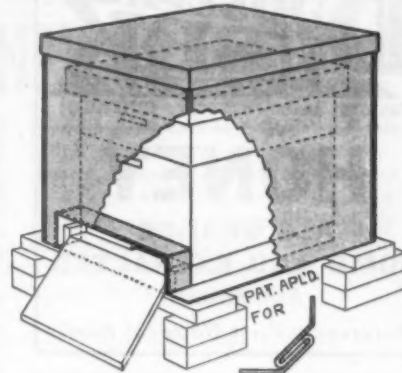
Celotex Keeps Bees Warm

Tests during the past three years at North Dakota Agricultural College indicate that one-inch Celotex offers excellent protection to bees wintered in outdoor hives in the severe climate of that state.

"Each season," reports J. A. Munro, state entomologist, "I am becoming more convinced that it is the ideal type of insulation for the purpose. Our first tests were unsatisfactory, but profiting by the first season's experience we remedied mistakes and in the second year ninety per cent of the colonies of bees wintered through. The third season, with some slight improvements, we found all colonies came through. One advantage I see is that the packing material may remain on the hives all year which is an advantage over a method utilizing straw, wood shavings, leaves and so on, which had to be removed in the spring and applied again in the fall."

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American Honey Institute NEWS NOTES

DON'T forget National Honey Week November 10th to 16th. Send to American Honey Institute for a six-page Honey Week schedule giving planned cooperation between beekeepers, associations, schools churches, departments and individual beekeepers' programs which will be of considerable help to you in planning your part in National Honey Week.

Above all things, do something. Don't just read this and forget about it. Make National Honey Week a big success.

Second National Honey Cookery Contest

Get your local cooks interested in this contest. It is open to everyone. Entry should be sent to American Honey Institute, Cookery Contest, Statler Hotel, Detroit, Michigan, and should be there promptly.

International meetings, the dates and programs are given elsewhere in this issue. Be on hand.

One Hundred Honey Helpings

At last we have awaited release of Institute printed material "One Hundred Honey Helpings." A two-colored cover and a thirty-page booklet with illustrations of recipes, food value and use of honey, recipes for beverages, spreads, cakes, cookies, fruits and sauces, meats and fish, pies and puddings, salads and salad dressings, vegetable specialties. These may be obtained from the American Honey Institute at a nominal cost. Members will receive one copy.

New Ideas for Fountain Service

This is the title of a new booklet of eighteen pages containing tested formulae of the Home Economics Department of the Fruit Dispatch Company, North River, New York City. It gives fine ideas for honey for soda fountain service and includes honey recipes. One for Honey Krispie Sundae on page five.

Sunkist Includes Honey

A broadside reprint of what apparently was an advertisement in the American Weekly of July 14th is decked with a wonderful Sunkist orange picture and several recipes, among them Honey Orange Ambrosia Salad. Thank you, Sunkist.

Mrs. Jensen is to visit the Pacific Coast. Mrs. Jensen, Secretary of American Honey Institute, will leave Madison about the 27th of October for a meeting in Montana on the 30th and 31st, in Wyoming the 4th and 5th of November, Idaho the 7th and 8th, Oregon the week of November

10th to 15th and California November 18th to 23rd. She will probably attend meetings in Nevada and Utah.

Beekeepers in these respective states should watch for programs of interest issued from their local association about Mrs. Jensen's visit to the West.

"How's Business?"

By Elmer Carroll,
 Michigan.

A Southern beekeeper friend told me recently, "Let me see a beekeeper's equipment and I'll tell you how solid his business is."

"To begin with," he continued, "I've never seen it fail. When I see a yard of unified hives well painted, I know immediately that here is a man who takes interest and pride in his enterprise. As a rule you will find this man's business dealings on the 'up and up,' and a good credit established. And he is progressing. But if the hives are unpainted and the honey house littered with everything good and bad, dirty, untidy—watch out."

"Are there other ways you would diagnose a beekeeper's standing, supposing you couldn't see his yards or shop?" I asked.

"Yes," my friend ventured, "If I can just look at his bee veil and smoker. Note whether the bee veil is a make-shift affair, cloth discolored and peppered with holes, wire rusty and greased and kinked from long use or careless handling; or in good shape, preferably of the folding type. Notice the smoker. Is it in good shape or is it creosote plugged, bent and jammed? I believe you'll find this works in the majority of cases."

Is my friend right? This brings to mind an incident that took place a few years ago.

A state bee inspector visited our place and sported a wreck of a bee veil. I've wondered many times just how old that veil was and how the good inspector's bee yard and shop looked. The veil was one of those discolored, rusty and kinked affairs mentioned above. It took a lot of punching and bending to get it into shape to wear. Right away I got to thinking of all the things, humorous and otherwise, that have been said about beekeepers by some inspectors.

Now I am of the cooperative type but it does seem that state inspectors, paid for their work, even though their job is disagreeable should make a neat appearance. Surely this should

include the conspicuous bee veil and smoker.

The subject of guessing a man's business standing by the looks of his equipment, reminds me of a prominent bee supply man. This gentleman has an uncanny way of diagnosing character, though he has never seen the person, through the correspondence he receives. Particularly that requesting credit or favors. And may I add, he is invariably right.

Do Spiders Kill Bees?

By Edmond Fontaine,
Maryland.

I tried a practical experiment, by putting an injured bee into a spider's web, and watched the proceedings for an hour.

The web was strung between high bushes, five feet wide, and the spider was one of the largest I ever saw, being five-eighths of an inch body length, and with legs covering a circle of one and a half inches.

The bee could move her legs, but not the wings, and the spider—hidden away in a distant fold of the web, did not seem to be very ready to capture the bee.

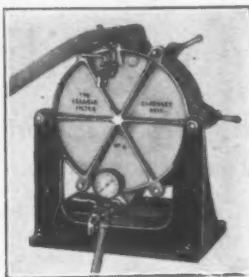
After a minute the spider rushed out—a distance of two feet down one of the ropes of the web, and then evidently used caution in approaching the bee, for it reached out and touched the bee with its front legs a number of times.

Then the spider paused a moment (thinking), and the plan for tying up the bee was perfect. The bee's legs were still moving.

First the spider cut away the silk webbing at the two sides of the bee, leaving the head and tail hanging by the silk. Then the spinnerettes of the spider shot out a broad band of the silk, and the end stuck onto the bee, and the spider's legs rolled the bee over very rapidly just like a spool of cotton, and the bee was wrapped up like a mummy in about ten seconds.

The enormous spider sucked the juices out of the bee through the bands of silk, which soon ended the bee, and in ten minutes all the juices of the bee was gone. Then a surprising thing happened—the spider proceeded to eat up the silk webbing which it had wrapped around the bee. Then it did a little more eating of the bee, and later the remains was dropped to the ground.

I don't think any spider would try to kill a healthy bee, but I think that the silk from the webs may do a lot of injury to bees if it gets on the wings or legs. Bees are too strong for spiders, and that big spider evidently knew the bee had a sting (how did she know it?).



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STATEMENT OF OWNERSHIP

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of American Bee Journal, published monthly at Hamilton, Illinois, for October 1, 1935.

STATE OF ILLINOIS, } ss.
County of Hancock;

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, rendered by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse side of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor and business manager are:

Publishers, American Bee Journal, Hamilton, Ill.
Editor, C. P. Dadant, Hamilton, Ill.
Managing editor, G. H. Cale, Hamilton, Ill.
Business manager, M. G. Dadant, Hamilton, Ill.

2. That owners are:

American Bee Journal, Hamilton, Ill., owned by

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That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages or other securities are: None.

(Signed) M. G. DADANT,
Business Manager American Bee Journal.

Sworn to and subscribed before me this twenty-third day of September, 1935.

MINNIE KING,
Notary Public.

My commission expires Nov. 18, 1937.

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To Whom Belongs the Responsibility?

By H. F. Wilson, Chairman,
Institute Finance Committee.

DURING the early days of cooperative marketing this story was frequently told—"A farmer dashed into town in his automobile and stopping in the middle of the square inquired of the first person he saw—"where is the undertaker?" The person addressed asked if someone was dead at the home of the questioner. The reply was that no one was dead but his wife was awfully sick and everybody was talking about cutting out the 'middle men'."

In the bee business there are very few "middle men" and most of our beekeepers are looking for the undertaker. This is not because there is not a good opportunity for middle men, but simply because many beekeepers have either convinced themselves that there is no need for middle men or they have forgotten to lie down so that the undertaker could take them away. This may sound like strong language, and perhaps some of my beekeeping friends may resent these statements. But only those who have already made up their mind never to do anything to help themselves are going to get angry. Beekeeping is a very important industry, but it continues to appear small because the majority of the beekeepers continue to let it rest in that class. Beekeeping is slowly but surely creeping out of antiquity into a modern industry. The progress is slow and undoubtedly will continue that way until the majority of beekeepers begin to appreciate that it is a business, and that in order to make it a success it must be carried on in a business-like way.

If the figures could be collected, I am very sure they would show that seventy-five per cent of our commercial beekeepers would find they are actually losing money, if they figured their time at a fair wage in estimating their returns. Time and time again figures have been presented to show that only a few beekeepers are really keeping bees at a profit, but little or no attention is paid to such statements. Beekeepers go on, year after year, keeping no record of their expenses and not knowing that they are realizing from their efforts a wage smaller than that paid the average garage mechanic who earns perhaps seventy-five cents to a dollar an hour for his time. Farmers have done likewise and probably will continue to do so until the time comes when practically all of the farms will be owned or controlled in large

groups by individuals or corporations who make a business of farming. It has been shown in a number of cases where individual farmers failed because of poor management and a lack of cost accounting, that these same farms, handled in a business-like way, yielded suitable profits. When the time comes that bees are included in the same scheme as a part of the agricultural industry, they will be made to produce a profitable return. But, since that condition is perhaps many years remote, what are our beekeepers going to do for the present? For the most part, they will continue keeping bees as a non-paying enterprise, but from which they can eke out a rather unsatisfactory living, because those solely engaged in the bee business will feel that they have no other recourse to a livelihood.

Thousands of pages have been written about cooperation, and many efforts have been made to bring about cooperative marketing, but in every case they failed because the beekeepers themselves would not cooperate in sufficient numbers to permit the effort to reach a satisfactory stage.

The difference between a loss and a profit can easily depend upon one cent a pound more for honey, but since no combined effort is made to secure that extra penny, the enterprise ends in a loss. Now, how can this situation be changed?

Personally, I believe that there is but one way, and that is cooperative advertising and publicity. Such an organization is already in existence, stumbling along, and literally begging the beekeepers to come in and actively cooperate in spreading the story of honey throughout the length and breadth of the land at a cost so low as to be unparalleled in the history of farm product marketing. Probably many readers would recognize the organization mentioned even though its name were not included. I refer to the American Honey Institute, of course, and to those beekeepers who by steadily maintaining their interest in the Institute's publicity program and continuing their memberships so that the Institute might live, the beekeeping industry owes a deep debt of gratitude.

Not more than a thousand beekeepers are at present furnishing the finances for the publicity campaign that carries the gospel of honey into every American home. Who are the beekeepers that support this effort? They are the same one thousand that

are always found backing up the co-operative efforts to improve their industry. They are the beekeepers who attend the meetings and who have some pride in the beekeeping industry. They are the ones who are anxious to learn how to keep bees better and how to do the best possible job of marketing the honey crop.

Many thousands of beekeepers in the United States today are "cashing in" on the honey publicity campaign produced by American Honey Institute. Any beekeeper who attempts to deny that the publicity produced by the Institute has not greatly increased the distribution and consumption of honey is not in touch with the thousands of pages of printed publicity that have appeared in magazines and papers throughout the United States.

The beekeepers of foreign countries are today better informed on this subject than many beekeepers of America, or, at least, they appreciate more what has been accomplished. Stories about the Institute have appeared in a number of foreign bee journals, the most recent of which appeared in the Australasian Beekeeper for July, published in New South Wales. The title of the article is "Permanent Honey Publicity." Particular mention is made of the fact that New Zealand is receiving the highest price in the world for honey as a result of the Commonwealth having spent nearly \$50,000 a year on advertising and publicity, as well as an additional \$50,000 spent by an individual exporting company to advertise its honey.

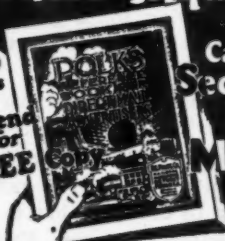
The following statement is made regarding the Institute—"The Honey Institute of U. S. A. is doing wonderful work in publicity. If we could

(Please turn to page 499)

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Beekeepers in this country are increasing their holdings and new beekeepers are establishing themselves along the Great Northern Railway in these states. Diversified farming and live stock are similarly favored by low cost production.

Write for Free Booklet on beekeeping and farming opportunities, including Low Homeseekers' Round Trip Excursion Rates.

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Crop and Market Report

Compiled by M. G. Dadant.

For our October issue, we asked reporters to answer the following questions:

1. How is total crop compared to 1934?
2. What prospects from now on?
3. How is honey selling compared to 1934?
4. Are buyers active? What price offered for carlots?

Suggested Prices

We give the revised reports on the season's crop. In fact in all instances there has been a reduction in the amount of the honey crop compared to what was reported and anticipated last month. In other words the latter part of the season in practically all instances has been a disappointment and this is particularly true in the sweet clover regions where a big crop was in anticipation and has not been forthcoming.

In most of the northern regions the crop cut short in middle August whereas usually it runs on until frost without diminution.

We do find, however, in the fall flow regions comprising the state of Illinois, Missouri, southern Iowa and into Kansas and Nebraska, and even up into southern Wisconsin and southern Minnesota that the fall flow has been tremendous and far greater than had been anticipated. In many instances we are hearing reports of smaller beekeepers and even larger ones getting a fall crop of 100 pounds with the flow still continuing at the date this is written (September 19). In many cases the flow is of light honey, practically entirely from heartsease, while in others the honey is of a bright golden color showing the presence of much Spanish needle honey.

While this is a boon to the beekeepers in this section, it does not mean any great amount of honey to be distributed on the larger markets as there are not a great many big beekeepers in the section where the fall flow is best.

We believe that the entire crop the country over is less than was reported a month ago, largely due to the failure of the latter part of the sweet clover flow.

By our report, you will notice that the central part of the Atlantic coast region, the state of Georgia, southern Florida, perhaps Texas, New Mexico and Arizona, possibly Michigan and the Dakotas, and Utah are about the only states reporting anything like more honey than a year ago. This, of course, has to include California, which had an extremely short crop last year, but is very disappointing this year when prospects were so favorable.

In the Canadian provinces, likely not over 80 per cent of a crop throughout the provinces will be gathered, although conditions looked better a month ago.

Prospects for Balance of Year

After all this season is just about over, even the fall crop waning at the date this is written and there are no further prospects for honey, so that we may consider the figures as given as for the season.

Demand

The demand for honey, we believe, is in excess of a year ago at this same time. Naturally, with a big crop in prospect, buyers were offering low prices and the probable demand was not quickened on account of a failure of honey in many sections. With the imminent failure of many carloads in the West, particularly in the northern inter-mountain sections and even in the carload regions of Ohio, Michigan and Minnesota, there has been a quickening in buying and a resulting heavier sale.

This, also, is reflected in the demand on the part of the little retail buyer. Many of our smaller beekeepers are reporting that the demand is better than it was a year ago. Presumably, the cool spell earlier in September also had something to do with that. We are wondering if the influx of a heavy fruit crop, particularly of apples, is not going to have a little depressing influence on the retail market, at least until the apples are stored and the surplus second grade fruit is disposed of.

Buyers and Prices

As intimated above, buyers have been active during the past thirty days trying to get in enough honey for their packing demands and, as a result, the prices have almost skyrocketed. Where earlier in the season, the price of 4½ cents was offered, beekeepers are being offered even as high as 6 cents and cans furnished. However, this is not a general thing.

We do believe, however, that the reaction on the market has been such that the prices have gone up to last year's level and that there is no doubt but that they will be maintained throughout the balance of the year with, perhaps, the possibility of some appreciation a little later on.

We are giving the price page opposite as last month's with the changes as suggested. Our reporters did not suggest many changes but those made were all on the upward side. One writer from California stated that we were not fair because we were depressing the price, whereas they were holding for a good price. However, we were trying to reflect just what the market is out there.

We anticipate having an editorial on buyers' prices on honey, etc., expressing our ideas.

All in all, the honey crop, although it has been disappointing, we believe will equal the 1934 crop and perhaps exceed it somewhat, owing to the fact that there is a more general distribution of honey this year. Even the dry areas of last year produced considerable this year, whereas they were a nil quantity in 1934. We do not believe, however, that there is going to be much more than last year even if any more, and that the clean-up of the markets last spring will be reflected along with the probable increased demand, owing to better business conditions. We are optimistic as to the ultimate scale of all of this year's crop before we get into the 1936 production.

Are You Ready for This Season?

Have you gone over your equipment? Have you plenty supplies? Advertisers in the American Bee Journal will welcome any inquiry sent to them.

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Write for Our Special Club Offers
AMERICAN BEE JOURNAL

Edwin H. Guertin 201 N. Wells St. Chicago

Buy and Sell All Grades Extracted Honey
References: 1st National Bank, R. G. Dun or Bradstreet's Commercial Reports.

SUGGESTED PRICES — F.O.B. SHIPPING POINT

	Crop Compared to 1934	Buyers?	Offers	C/L White Extracted	C/L Amber Extracted	C/L No. 1 Comb	10-lb. Retail Extracted	5-lb. Retail Extracted	10-lb. Bulk Comb	5-lb. Bulk Comb	1-lb. Jar Retail	Comb Section	Comb - Case to Grocer	Discount to Grocer	Discount to Jobber
NEW ENGLAND	85%	No					\$1.60	\$.85			\$.25	\$.25	\$4.00	\$.25	\$.35
NEW YORK	60%	No		.07	.07	\$3.00	1.30	.75			.25	.25	4.00	.25	.35
NEW JERSEY, DELAWARE, MARYLAND	90%						1.50	.85			.25	.20	3.50	.20	.30
WEST VIRGINIA, VIRGINIA	110%	Yes	.07				1.25	.70	1.85	.75	.20	.20	3.60	.20	.30
NORTH CAROLINA, SOUTH CAROLINA	60%						1.30	.70	1.40	.75					
GEORGIA	150%	Yes	.05-.06	.07	.05½		1.25	.65	1.85	.75	.25			.20	.25
50% N															
125% S		Yes	.05	.06	.05½		1.20	.65			.25			.20	.30
FLORIDA							1.25	.75			.20			.20	.25
ALABAMA, MISSISSIPPI	80%			.07	.05½		1.45	.75	1.70	.90	.20	.25	4.80	.20	.25
KENTUCKY, TENNESSEE	70%						1.00	.60	1.50	.80	.20			.20	.30
ARKANSAS, LOUISIANA	50%	Yes	.06		.06		1.00	.55	1.10	.60	.25			.20	.30
TEXAS	100%			.06	.05		.90	.50							
NEW MEXICO, ARIZONA	100%						1.25	.75			.20	.20	4.50	.20	.30
PENNSYLVANIA, OHIO	60%			.07-.08			1.25	.65			.20	.20	3.75	.20	.30
MICHIGAN	100%	Yes	5½-.06	6½-.08	.06½		1.15	.60			.20	.20	3.75	.20	.30
WISCONSIN	80%	Yes	.06	.07	.06		1.15	.65			.20	.15	3.40	.20	.30
MINNESOTA	90%	Yes	.06	6½-.07	.06		1.25	.65			.20	.20	3.75	.20	.30
INDIANA	65%	Yes	.06	.07	.06		1.25	.65			.20	.20	3.75	.20	.30
ILLINOIS, IOWA, MISSOURI	65%	Yes	.06	.07	.06		1.25	.65			.20	.20	3.00	.20	.30
NORTH DAKOTA, SOUTH DAKOTA	100%	Yes	.05½	6½-.07	.06		1.25	.65			.20	.20	3.50	.20	.30
NEBRASKA	90%			.06½	.06		1.40	.75			.20	.20	3.25	.20	.30
KANSAS, OKLAHOMA	50%						1.10	.60			.15	.15	3.00	.20	.30
MONTANA, WYOMING, COLORADO	90%			.06	.05½		.90	.50			.20	.17	3.00	.20	.27
IDAHO	60%	Yes	.05½	.06			.85	.45			.20	.18	3.10	.20	.26
UTAH, NEVADA	110%	Yes	.05½	.06		2.75	.95	.55			.20	.20	3.25	.15	.25
WASHINGTON, OREGON	85%			.06½	.05½		.95	.50			.20	.20	3.75	.15	.25
CALIFORNIA	150%		.05	.06	.05	2.50	.95	.50			.20	.20	3.75	.15	.25
CANADA	90%	Yes	.08-10	.10½	.10		1.50	.85			.25				

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Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEEES AND QUEENS

ITALIAN Queens. Northern bred, for Northern conditions.
Eugene Gordon, Hershey, Nebraska.

QUEENS—Leather colored Italians. Good honey gatherers and gentle. Now 50c.
Joy Apiaries, Walter Friedlich, Belleville, Ill.

CAUCASIAN BEES AND QUEENS booked up for 1935 but accepting orders for 1936 delivery. Bolling Bee Co., Bolling, Ala.

ITALIAN AND CAUCASIAN QUEENS fifty cents each. Any number.
Weaver Apiaries, Navasota, Texas.

MOUNTAIN GRAY Caucasian bees and queens for 1936 delivery at Code prices.
P. B. Skinner Bee Co., Greenville, Alabama.

HONEY FOR SALE

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's.
David Running, Fillon, Michigan.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

FOR SALE—Well ripened clover honey, car lot or local shipments. Will be pleased to submit sample. **THE COLORADO HONEY PRODUCERS' ASSN.**, 1424 Market St., Denver, Colorado.

HONEY FOR SALE—Keep your customers supplied with honey. We can furnish white and light amber honey at attractive prices. Packed in 60-lb., 10-lb. or 5-lb. tins.
Dadant & Sons, Hamilton, Ill.

NEW CROP CLOVER HONEY. Write for quotation before buying.
Edward Klein, Gurnee, Illinois.

FOR SALE—Comb and extracted honey.
H. G. Quirin, Bellevue, Ohio.

CHOICE WHITE CLOVER HONEY in 60-pound cans. J. F. Moore, Tiffin, Ohio.

NEW COMB AND EXTRACTED.
N. B. Querin & Son, Bellevue, Ohio.

FOR SALE—Carlot of very fine orange blossom honey grades on line XW&WW at 6c lb., also car sage grades on line XLA & W at 5c lb. f.o.b. here.
H. J. Warr, 1838 Main St., Riverside, Calif.

EXTRA LIGHT amber clover extracted 6 1/2c. Sample 15c.
A. J. Wilson, Hammond, N. Y.

FINEST QUALITY white clover honey. \$8 per case, 120 lbs. net. New cans. Sample 10c.
W. J. Manley, Sandusky, Michigan.

HONEY—Comb-Extracted. Select lots. Write us your needs. Sample on request. A. I. Root Co., 230 W. Huron St., Chicago, Ill.

1800 LBS. OF BUCKWHEAT HONEY 6c lb. Sample 15c.
F. W. Summerfield, Grand Rapids, Ohio.

FANCY CLOVER and fall honey.
Kalona Honey Co., Kalona, Iowa.

COMB AND EXTRACTED honey, white clover and amber, all grades.
F. J. Smith, Castalia, Ohio. Route 1.

EXTRACTED HONEY, light and amber, Write for price.
Henry Price, Elizabeth, Illinois.

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Ralph Blackman, Portland, Mich.

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WANTED—Light and amber honey.
Riverside Apiaries, Russell, Illinois.

WANTED—Extracted Honey. Send sample and price delivered to T. W. Burleson & Son, Waxahachie, Texas.

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WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, Calif.

WANTED—Comb and extracted honey, in carlots or less. Send sample with delivered price. Schultz Honey Co., Ripon, Wisconsin.

WANTED—White, amber, capping melter extracted honey, ten tons or less. Quote without wooden cases within 300 miles of Columbus. Also No. 1 and Fancy white comb, 500 cases or less, and white chunk honey, five tons or less.
Central Ohio Apiaries, Millersport, Ohio.

WANTED—Honey, all grades. Amber and capping melter honey our specialty.
Blue Ribbon Honey Co., Gurnee, Illinois.

WANTED COMB HONEY IN ALL GRADES—also extracted honey. Send samples and best price. C. W. Aepler Company, Oconomowoc, Wisconsin.

WANTED CARLOTS OR LESS. Clover extracted honey. New cans. Clover Blossom Honey Co., 712 Kosuth St., Columbus, Ohio.

WANTED—Comb and extracted honey. Price at your yard on truck.
Russell Smalley, Rippey, Iowa.

WANTED HONEY FOR CASH—Truck lots and carloads—good Illinois, Indiana, Michigan, Ohio, Wisconsin, Minnesota, Dakota and Western honey. We are large cash buyers—write us.
W. F. Straub & Company, Chicago, Ill.

WANTED

WANTED—Exchange Printing for Honey. Snapp Printing Co., Greenville, Tenn.

FOR SALE

FOR SALE—Nearly new eight room house and all necessary outbuildings for carrying on package-bee and queen business. Well located. Good climate, good water, good roads. Sell with or without bees or bee hive factory. Bargain. Terms to right parties. Key J. c/o American Bee Journal, Hamilton, Illinois.

SUPPLIES

BEST QUALITY bee supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colo.

PORTER BEE ESCAPES save honey, money, avoid stings; faster most efficient. Sample 15c. R. & E. C. Porter, Lewistown, Ill.

SAVE QUEENS. Safin cages now 15c. Ten for \$1.00.
Allen Latham, Norwichtown, Connecticut.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.50. Sample, 3c stamp.
The Beekeepers Item, San Antonio, Texas.

FOR SALE—Queen mailing cages. Material, workmanship and service all guaranteed. Write for quantity prices.
Hamilton Bee Supply Co., Almont, Mich.

QUALITY BEE SUPPLIES. Prompt shipment. Reasonable prices. We take honey and beeswax in trade for bee supplies.
The Hubbard Apiaries, Onsted, Mich.

WILL WORK YOUR WAX into plain medium brood foundation for 15 cents pound.
Fred Peterson, Alden, Iowa.

DAIRY GOATS

DAIRY GOAT JOURNAL, Dept. 32, Fairbury, Nebr. Monthly magazine. 25c yearly; 5 months 10c.

MISCELLANEOUS

BOOK BARGAIN—Very slightly damaged copies of Beekeeping in the South by Kenneth Hawkins, cloth bound, published to sell at \$1.25, price postpaid only 29 cents.
American Bee Journal, Hamilton, Ill.

PLANS FOR POULTRY HOUSES—All styles; 150 illustrations. Tells you the type to build for your particular locality. Secret of getting winter eggs, and copy of "Inland." Send 25c.
Inland Poultry Journal, Spencer, Indiana.

FOR SALE—We are constantly accumulating bee supplies, slightly shopworn; odd sized, surpluses, etc., which we desire to dispose of and on which we can quote you bargain prices. Write for complete list of our bargain material. We can save you money on items you may desire from it.
Dadant & Sons, Hamilton, Illinois.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, Brockhill, London Road, Camberley, Surrey, England.

Argosies of Spring

Thus in the spring the diligent honey-bee

Spreads forth her wings, yet stiffe with the winter's cold,

Leaving with haste the cluster's protection,

Flies to the flowery meads and the gardens.

—Adapted from Purchas.

By Walter H. Hull.

To Whom Belongs the Responsibility

(Continued from page 495)

increase our consumption by one-quarter pound per head our troubles would disappear."

Reports are coming in that honey is being sold in carload lots at four and a half cents per pound. All reports indicate that the honey crop is going to be extremely short and it does not appear to me that there is any reason at all for selling honey for less than six cents per pound. By spring the honey crop will all be gone again, and those who are able or willing to hold their crop have the prospect of receiving as high as eight cents per pound.

If honey publicity will bring about an increased distribution and even an increase of one cent per pound, it will be worth a great deal more than the money spent in maintaining the Institute. Personally, I feel that there are thousands of commercial beekeepers in the United States who should be ashamed of not having done their share in maintaining the Institute. Undoubtedly most of these men attend beekeepers' meetings and know quite fully about the Institute and the work it is doing. Two women are working every day and oftentimes in the evening, creating honey publicity; and while quite a few beekeepers express their appreciation of their work, there are too many who are too indifferent about the Institute or if they feel that there is anything wrong with its policies, do not have the nerve to come out in the open and express themselves.

Wild Swarms in Abundance

Not since the American Indian roamed the plains of the Southwest have stray swarms been so numerous as this spring and summer. Wild bees to the right of us, wild bees to the left of us, in front of us and to the rear of us, and more flying over us.

Many citizens and housewives complained of being annoyed by these useful insects lodging in the homes between the weather boarding and ceiling.

Our remedy for this was to wire the entrance over securely and insert a bee escape, with a hive body placed on a platform near by containing foundation and if possible a comb of brood.

We have already harvested one flow of honey which was fairly good and brings a good price. We expect to harvest another from cotton some time this month as the crop is about thirty days late in Texas this year.

John R. Hancock,
Texas.

A Valuable Magazine

\$1.00

PER YEAR

2 Years, \$1.50; 3 Years, \$2.00.

Foreign—

1 Year, \$1.25; 2 Years, \$2.00; 3 Years, \$2.75.

WRITE FOR SAMPLE COPY

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PUBLISHED BY

THE A. I. ROOT CO.

Box G-2 Medina, Ohio, U. S. A.

Gleanings in Bee Culture—1 Year } **\$1.60**
American Bee Journal—1 Year } In U. S. A.



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CARNIOLANS
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JANE MARIE APIARIES
HEARNE, TEXAS
50c

THE BEEKEEPERS ITEM
The Southern beekeeper's own magazine, but read by honey-producers everywhere. Combined with the American Bee Journal makes a combination that covers the beekeeping field.
Send \$1.50 and get both magazines for a full year.
BEEKEEPERS ITEM, San Antonio, Tex.

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ITALIAN BEES AND QUEENS**
free from disease, write or wire for Guaranteed Delivered Prices on what you want.
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American Bee Journal, one year, \$1.
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American Bee Journal
Hamilton, Illinois

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ANNOUNCING

for the last time that

NATIONAL HONEY WEEK

takes place

NOVEMBER 10-16, 1935

**THE PROGRAM IS READY AND
IT'S FREE FOR THE ASKING!**

Write for your copy today, check it as soon as it arrives, and then let us know at once what material you wish for developing the best local National Honey Week your community has ever experienced. **Early** orders assure *early* deliveries.

**"According to thy faith,
so be it unto you."**

Two hundred and thirty beekeepers believe American Honey Institute is a sound and practical institution to help create a market for their honey. Because they have faith in the Institute's future and want its program to proceed uninterrupted, they have pledged their support for the next five years on the basis of \$961.75 and 2,800 pounds of honey annually.

If you believe as these beekeepers do, will you help the Finance Committee by sending in your five year pledge today? The coupon below is for your convenience.

AMERICAN HONEY INSTITUTE
MADISON, WISCONSIN

I believe in American Honey Institute. Thus I pledge for the next five years to send annually a membership of

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Name _____

Address

Jensen's "Magnolia State" Italian Queens

Still available at 50¢ each. Requesting late, after all brood has emerged, is regular practice with some commercial beekeepers and is a success. Don't let a single colony go into winter queenless or with a queen of doubtful calibre. Orders filled immediately. Quality guaranteed to equal our usual standard.

JENSEN'S APIARIES, Macon, Mississippi

**Wanted Shipments of
Old Combs for rendering
into Wax.**

WRITE FOR FULL PARTICULARS
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PACKAGE BEES, NUCLEI, QUEENS

FOR 1936 DELIVERY

— Circular Free —

"ST. ROMAIN'S HONEY GIRL" APIARIES
Hamburg, Louisiana

SELLING HELPS for Your Honey

Beekeepers are learning to sell honey locally, thus avoiding the glutted central markets. Our honey folders are ideal in this respect, and for distribution at roadside stands.

Honey Leaflet

Four pages. Cover in four colors. Explains fully but briefly the value of honey, its uses, and gives a few recipes. Name and address of beekeeper with honey prices if desired. Fits ordinary envelope. Sample free.



Prices postpaid with name and address, etc.:

100, \$1.85; 250, \$2.75

500, \$4.75; 1000, \$7.75

Each additional 1000, \$9.75.

Eight Page Honey Folder

"Sweetheart of the Flowers"
Short description of what honey is, how produced, harvested. How to keep it, and other data of general interest. A full page of honey recipes included.

Prices

100---\$1.00 250---\$2.50

500	4.50	1000	8.50
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Extra for printing your name and address: 250 or less, 95c; 500, \$1.25; 1,000, \$1.90.

American Bee Journal :: Hamilton, Illinois

LAST CALL FOR
Italian Queens
50c ea.

Citronelle Bee Co., Citronelle, Ala.

Don't Forget! When you are packaging this year's crop be sure that the container and its label are attractive. To assure yourself of a ready market, consult our Catalogs of Containers and True Character Labels. If you do not have them, ask for your copy now.

American Bee Journal . Hamilton, Ill.

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Shows the way to success . . gives the latest news and views of the rabbit world — an illustrated monthly magazine of general and educational features. Yearly \$1.00. Three years, \$2.00. Sample 15c.

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STICKERS**

To paste on your letters, envelopes and packages.

A constant honey advertisement.

White letters on 1/2"x2" red paper — "Eat Honey" — Gummed for use.

1000, 40c. 100, 20c. Postpaid.

AMERICAN BEE JOURNAL
Hamilton, Illinois

Better Bred Italian Queens

Try our improved three-banded stock, any quantity 50c each. Dealers, 42 1/4c each.

Foundations and bee supplies at good prices. Write for prices.

CALVERT APIARIES, Calvert, Ala.

**"The
Romance of the Hive"**

By Frank C. Pellett

A new book by this well known author. A thoroughly enjoyable romance — delightful reading — about your favorite pursuit. A philosophical story of the facts of bee life. Many fine illustrations. Large readable type. Cloth binding, 203 pages.

Price \$2.00, postpaid.

AMERICAN BEE JOURNAL
Hamilton, Illinois

**YORK'S Quality Bred
BEES AND QUEENS**



Low summer prices expire with this month. If you have not finished requeening, this is your last chance before prices advance.

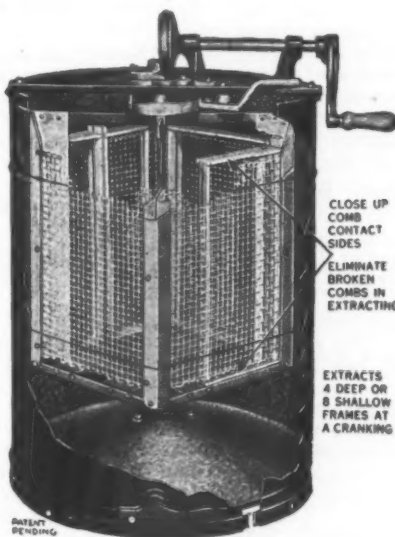
Untested Italian Queens ----- \$.50 each
2-lb. Packages, Italian Bees with Queens 1.95 each
3-lb. Packages, Italian Bees with Queens 2.55 each

PACKAGE BEES and QUEENS for 1936

We are preparing now for the coming season and our output will be greatly enlarged to handle increased business. It will cost you nothing to book your order now and we urge customers to do so. Take advantage of this opportunity and avoid any possible delay or disappointments on your next spring requirements. We are prepared to handle any size order and same are always highly appreciated. It is the general opinion that the same 1935 prices will remain in effect the coming season.

We are also dealers for Lewis Beeware and Dadant's Foundation.

YORK BEE COMPANY
The Home of Quality Products
JESUP, GEORGIA



**The Universal
Honey Extractor**

Takes 4 deep frames of any size up to 11 1/4" or 8 shallow frames of any size up to 6 1/4" at a loading or cranking.

It has the greatest capacity in the smallest space and the least weight, which makes for easy cranking, yet it is the most substantial.

It will extract more honey and do it easier than any hand power extractor on the market. The next step is to the power driven Radials.

Ten different styles and sizes of extractors to choose from, all priced as to value and performance

A. G. Woodman Company
GRAND RAPIDS, MICH., U. S. A.

**ATTRACTIVE
NEW LABELS**

-- for --

Sunburst Jars Beehive Jars

These fit exactly into the label spaces on either kind of jar. Write for samples to see how well they look and for prices.

AMERICAN BEE JOURNAL -- HAMILTON, ILL.

The POSTSCRIPT

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

Doctor Park has commented on the gentleness of the bees in our experimental apiary. Although they have come from many states and include several races and all stages of cross breeding there are no really bad humored ones among them. He explains it in the arrangement of the hives which are scattered about among the shrubbery leaving each one in an isolated position. Bees are much more inclined to ill-temper where the hives are in rows close together so that inmates of other hives are likely to be constantly drifting in.

— : —

The fruit districts of Oregon may not yield the largest crops of honey but they appear to be attractive regions in which to live. Letters from Everett George, of Independence, Oregon, tell of large orchards of Royal Ann cherries which are not sprayed thus permitting the bees to gather the honey without danger. The cherry yields nectar in April. May brings a flow from loganberry which lasts to near the end of June. Blackberry yields in July. While other plants such as alsike, vetch and fireweed yield substantial surplus, there is something from the fruit plantations during most of the season.

— : —

There are men who contend that the highest development known to this continent will eventually be found in the Northwest from Northern California to British Columbia. The mild climate with no extremes of either heat or cold, combined with abundant natural resources and immense power available will enable men to reach the height of achievement it is said. Letters such as above quoted make me wish to see more of that region which I have found extremely attractive in my brief visits.

— : —

When writing copy for the October number I am reminded that the summer will soon be over and another season closed. Soon after this page is in print we will prepare the experimental apiary for winter and I will return to Hamilton for the winter months. The summer, working with Dr. Park and Prof. Paddock, has been an exceedingly interesting one and we look forward with anticipation to further study of the disease problem next year. It will take a year or two to demonstrate whether promising colonies of bees are as resistant to disease as they appear to be.

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J. W. Peterson, of Puyallup, Washington, reports that scabiosa is a plant with unusual attraction for the bees. He says that the blossoms are covered with bees. Scabiosa is also called "mourning bride" or "pin-cushion flower." There are several kinds which are popular garden flowers. Most of them are annuals.

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A note from J. F. Diemer says, "I wanted you to know that old Diemer is still above the grass." Diemer is one of the few old timers still left among the beekeepers. It would be fine if all his friends would drop him a line just to let him know that we appreciate the fact that he is still with us.

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H. J. Rodenberg sends flowers of Rocky Mountain Bee Plant from Manhattan, Montana. He says that it grows on the driest hills and seems to be more plentiful each year. The bees fairly crowd each other in their eagerness to reach the nectar in late summer.

In years past this plant received much attention in the bee magazines and much of it was planted by eastern beekeepers in the hope of improving their bee pasture. It is a Cleome, related to the spiderflower commonly grown in gardens.

Reports indicate a considerable decline in the amount of sweet clover in some western states where it was formerly very plentiful. A correspondent wants to know whether it will come back to its former abundance or whether it is playing out. In portions of Alabama and Kentucky where sweet clover had a period of great prosperity it has suffered a similar decline and to date has apparently not recovered.

It often happens that a plant, animal or insect which is a newcomer increases very rapidly for a time and then falls back to a less prominent place for a permanent position. Perhaps this may be the case with sweet clover.

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A Georgia correspondent asks why sourwood blossoms failed to secrete nectar over an area of about one hundred fifty miles in Asheville, North Carolina, district when one half of the region had ample rainfall and the other had a drought. Upon examining the blossoms of a hundred sourwood trees in all stages he failed to find any nectar in the bloom, although bloom was heavy.

I wish I knew the answer to his question. It is a baffling problem which has interested me for many years. It is probable that a combination of environmental influences control nectar secretion but just why a plant yields nectar freely at one time and fails to do so at another I cannot tell.

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A New York beekeeper writes me that he is very much discouraged because of disease. He says, "I have burned and burned, and burned, and just as I thought that I was about cleaned up I find that the disease has taken a new onset and that I am practically one hundred per cent infected again." He says further that he is stuck and does not know what to do. It is the thousands of such cases that offer the incentive to seek a better and more dependable remedy than has thus far appeared. An extensive program of research in bee disease control is certainly needed if the industry is to survive.

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Letters continue to come to me asking for further information concerning the blue flowered sweetclover. Aside from the fact that it is an annual not much information is available here. To learn more about it was the object of the distribution of the large number of small samples of seed sent to our readers last spring. We hope that those who have it will observe carefully everything of importance concerning its behavior and report to us. It does not look very promising here at the Iowa farm although we think it is worthy of further trial.

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With reference to the confinement of mature bees in queen-cells as mentioned in previous months on this page, Hy. W. Sanders, of Morris, Manitoba, writes: "See Dr. Miller's 'Fifty Years Among the Bees,' page 240; 'The fourth cell (in picture) looks as if it contained a young queen. But it is deceptive. The bees have a trick of fastening the cap back again as if it were a great joke, sometimes thus imprisoning one of their own number.'"

The reference is on page 249 and picture on page 265 of my edition. Many interesting observations are recorded in Miller's Fifty Years.

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Another Australian, Alf. E. Norton, of New South Wales, comments on the world wide maladjustment with starving families couched in the shelter of silos filled with wheat. While fruit is rotting under the trees, vegetables dumped into the sea and abundance is undistributed there is poverty and degradation everywhere. He suggests that the major objective should be a reform which will result in mankind becoming really civilized. The mass of our correspondence indicates that beekeepers generally have a kindly feeling for their fellow men.

FRANK C. PELLETT.